

FLORIDA HIGHWAYS

Vol. IV

OCTOBER, 1927

No. 10

Published by the State Road Department

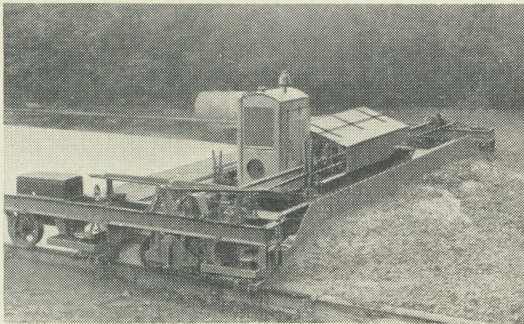


\$1.00 Per Year

Single Copies 10c

Sebastian River Bridge Approach from the South.—Road No. 4

You Can Depend on the ORD —it sticks to the Job!



Job after job you can depend on the ORD Concrete Road Finisher about as much as you can depend on daylight. The ORD has a well earned reputation for staying with a job until it is completed and still being in fine condition to tackle another—and another.

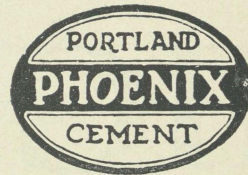
After years of constant use with a minimum of attention for repairs—the ORD Concrete Road Finisher can be resold for a surprisingly high price.

Truly this is an investment that pays large dividends. Investigate today

A. W. French & Company

Manufacturers of the ORD Concrete Road Finisher
8440 Lowe Avenue Chicago, Ill.

For
Perfect Concrete
USE



Standard since 1898

Manufactured By

Phoenix Portland Cement Corp.

Plant

Phoenixville { Birmingham
Bessemer district { Ala.

Sales Office

Alabama Power Building

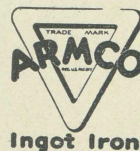
BIRMINGHAM, ALABAMA

Capacity 1,500,000 bbls. annually



Armco Corrugated Culverts at the Venice (Florida) Golf Course.

Florida Relies on



Corrugated Culverts

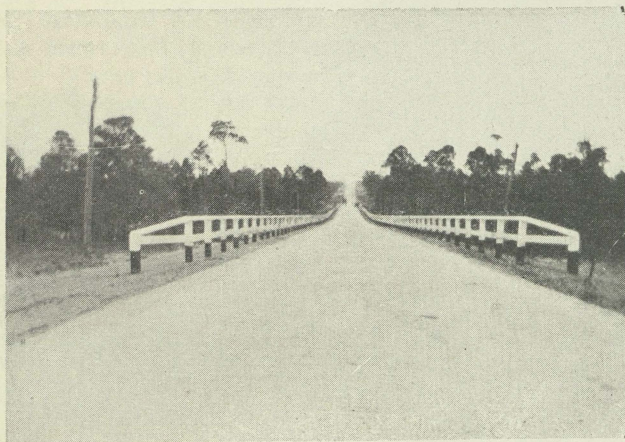
Shifting sand can't hurt an Armco Corrugated Culvert. Florida has learned that. "Spongy" fills in swampy country won't pull an Armco culvert out of line. Florida knows that. For a strong drainage structure of greatest permanency, Florida relies on ARMCO.

Write for information to

Dixie Culvert & Metal Co.

Jacksonville, Florida

FLORIDA HIGHWAYS



Vol. IV

OCTOBER, 1927

No. 10

State Road Number Four

By L. K. Cannon, Assistant State Highway Engineer

Continuing the recently announced policy of Florida Highways, emphasizing in each of its several issues some one of the roads in the Preferential and Primary System of the State, I have been requested to prepare a story based upon Road No. 4, that being the next in line numerically.

The Route and Location

Chapter 10269, Laws of Florida, Acts of 1925, which declares, designates and establishes the State Road System, defines State Road No. 4, as follows:

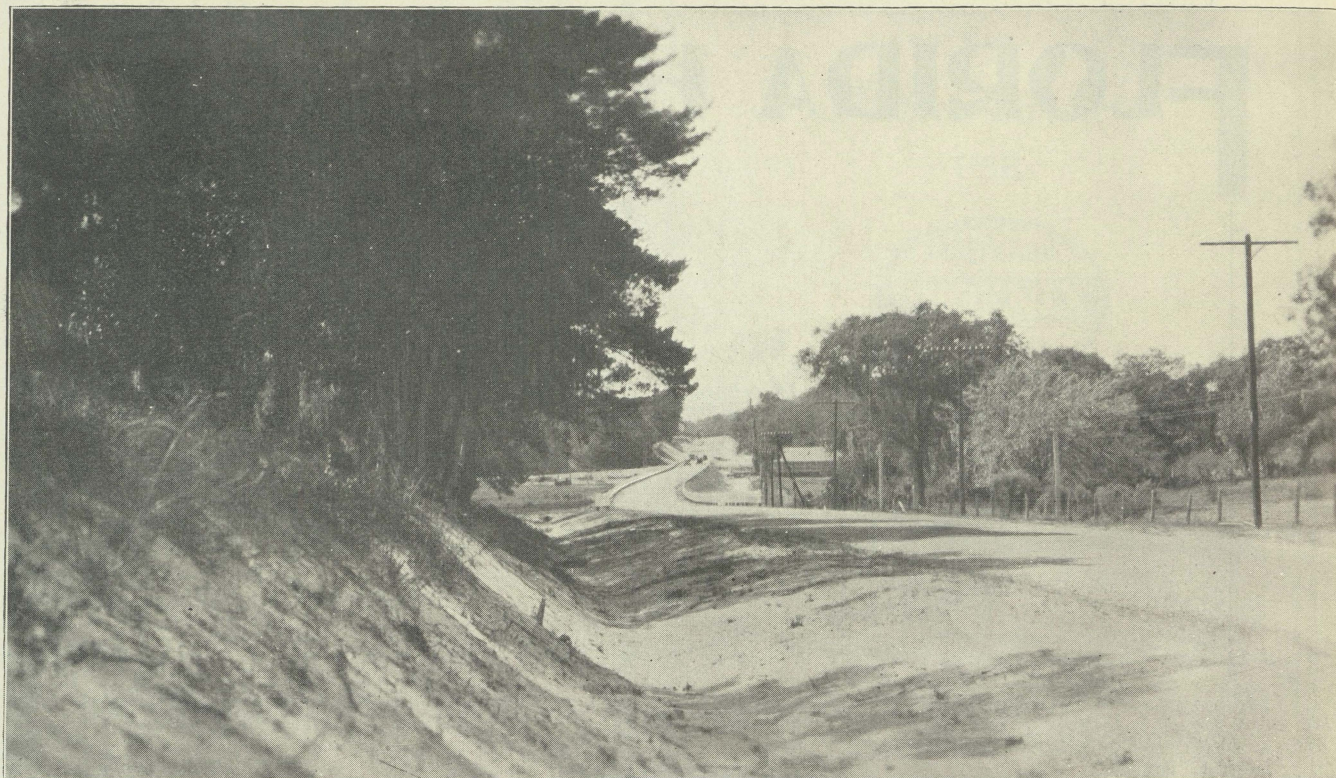
"Road No. 4. Extending from the Georgia State line south of Folkston to Miami, via Hilliard, Callahan, Jacksonville, St. Augustine, Bunnell, Daytona, Titusville, Ft. Pierce, West Palm Beach and Ft. Lauderdale."

The total length of the road from the Georgia State line to Miami is 397 miles, being the second longest of a single numerical designation in the State and is also classed as an interstate highway. This road connects with one of the central roads in Georgia and, therefore, is in a position to draw traffic from that point, carrying same to Jacksonville, known as the Gateway City of the East Coast. This road in its location crosses several rivers, among which to begin with is the St. Marys River, which is on the boundary line between Georgia and our State; others are the Nassau; Trout; St. Johns, one of the main rivers of commerce; the headwaters of the Indian River; Sebastian; St. Lucie; Loxahatchee; next we strike the inland waterway known as East Coast Canal and numerous drainage canals between West Palm Beach and Ft. Lauderdale; New River

and Little River. With the exception of the St. Johns, Sebastian, St. Lucie and Loxahatchee (these all being large streams) the others are small rivers. However, they play an important part in the drainage of the back country adjacent to all the East Coast territory.

In order that one may fully comprehend the condition and country through which this Road No. 4 runs and the beautiful scenery to be viewed along its route, it will be necessary for one to take a trip over this road, and if the readers will bear with me I would like to have them join me in a trip I will now endeavor to take.

We are starting at the Georgia line. At this point you will notice a new bridge is being built and is nearing completion. This bridge is being built jointly by the State Road Department of Florida and the Georgia Highway Department, the same constructed as an interstate bridge. For your information as we go, we have a paved highway all of the way ahead of us into Jacksonville. This stretch from here to the Duval County line, which is just five miles beyond the little town of Callahan which we just passed, was built by the Department several years ago. Prior to its construction this was known as one of the dark spots in our highway system. This is county construction from this point into Jacksonville, the same being a sheet asphalt surface road. We are now entering Jacksonville, having traveled 39 miles. If you will watch the blue and white road signs marked "Fla. 4" you will see how easy you find your way through this large city.



F. A. Project 48, at Moultrie Creek, 5 Miles South of St. Augustine.

This river we are now crossing is the St. Johns. If you will glance back you may get a very pleasing view which shows the sky line of Jacksonville, also its activity as a seaport.

At this point we enter South Jacksonville. There are two routes which can be taken here. The one that is marked at present takes you over what is known as the "San Jose Boulevard" and is a very picturesque route, and although you do not realize it, you are going practically parallel to the St. Johns River. This stretch of road, until we strike the next concrete section, was built by Duval County and is at present a part of Road No. 4.

We are now entering St. Johns County, of which St. Augustine is the county seat and, as we all know, is the oldest town in the United States. It is well worth anyone's time to linger awhile in this quaint city as there are many interesting historical places to see. We also note the more modern improvements, both in streets and buildings. If we had time we could turn here across that beautiful bridge that you see to the left and take a very interesting and delightful trip over what is known as the "Ocean Boulevard" and come back to our Road No. 4 at Daytona. This is a stretch of road financed and built solely by the counties of St. Johns, Flagler and Volusia. There is some wonderful scenery along this route and one can travel right along the ocean bluff for many miles, but as we started to travel Road No. 4, we will continue.

We have just passed through New Augustine, which is a part of the Ancient City. As you will notice from signs, we should turn to the right, but as the State is just completing a new road that shortens the distance 14 miles we will go the shorter route. Therefore, we will continue straight ahead and we are now on this new construction. Just behind us it is planned to build a new bridge, con-

necting direct with the city. The road is completed to the Flagler County line.

You will note this is under construction at this point and we will possibly have to detour on ahead, but on our return trip if we delay same for another month, there will be no detour.

Flagler County, that we are now in, is one of our younger counties, it originally having been a part of St. Johns. You will note from the activity and development that it is forging right ahead. Flagler and St. Johns Counties produce the bulk of the Irish potatoes shipped from this section.

You perhaps have noticed since leaving the Georgia line that we have been traveling through a very level section of country, but it is considered very good agricultural land.

The river just to our left that you see through the trees is known as the "Halifax River." We travel practically parallel to its shores through Daytona until we reach New Smyrna. This river empties into the ocean through the inlet over to our left, where the light house stands. It is at this point along the Halifax River where the real tropical growth of palms and shrubbery begins to predominate and from here on you will find it in all its stages of growth and beauty.

Just across the Halifax River is the famous Ormond-Daytona Beach, where numerous speed records have been broken, the latest being the record broken by the English racing driver, Major Segrave.

Here at New Smyrna we swing away from the water line in order that we may clear the headwaters of the Indian River that we will cross on a small bridge, and you will hardly believe it is the same Indian River that you will see later on for a number of miles.

Our next stop is Titusville, the county seat of Brevard County. It is from this point and Cocoa,

just below here, where the bulk of the famous Indian River oranges is shipped.

We are now just above Cocoa and the road you see straight ahead is the new road that the State has just completed and is a through road passing through Cocoa, but in order to show you a beautiful scenic drive we will take the old road that follows the meanderings of this river for the next 12 miles through and beyond Cocoa. It is hard for a person to describe the magnificent views and scenery on this stretch. Anyone in a hurry should never attempt this route but should take the direct road mentioned above, because, as you will observe, it is desirable to travel slowly and take as long as possible to see all the wonders of this section.

At this point we are back where the through road, which we mentioned as having recently been completed, comes out. Just across the river is Merritt's Island and beyond that is Cocoa Beach, another wonderful bathing beach along the East Coast.

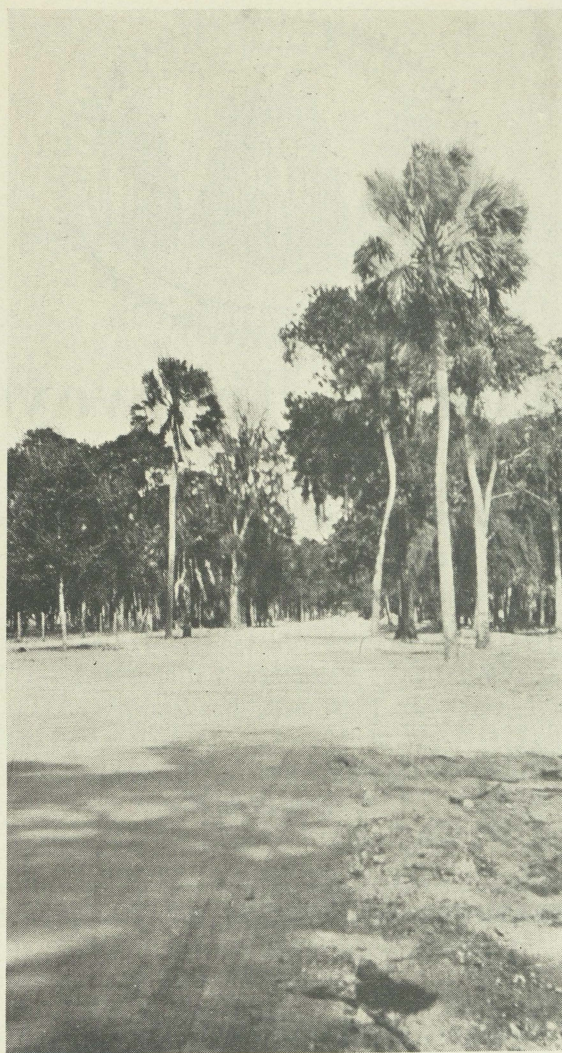
You have perhaps noticed there are bridges spanning the Indian River connecting a majority of the towns to the islands that lie between the river and the ocean.

The town we just passed through is Eau Gallie. The little stretch of road that did not look so good represents a small gap which is yet to be closed up by State construction and it is hoped in a short time work will be started on this.

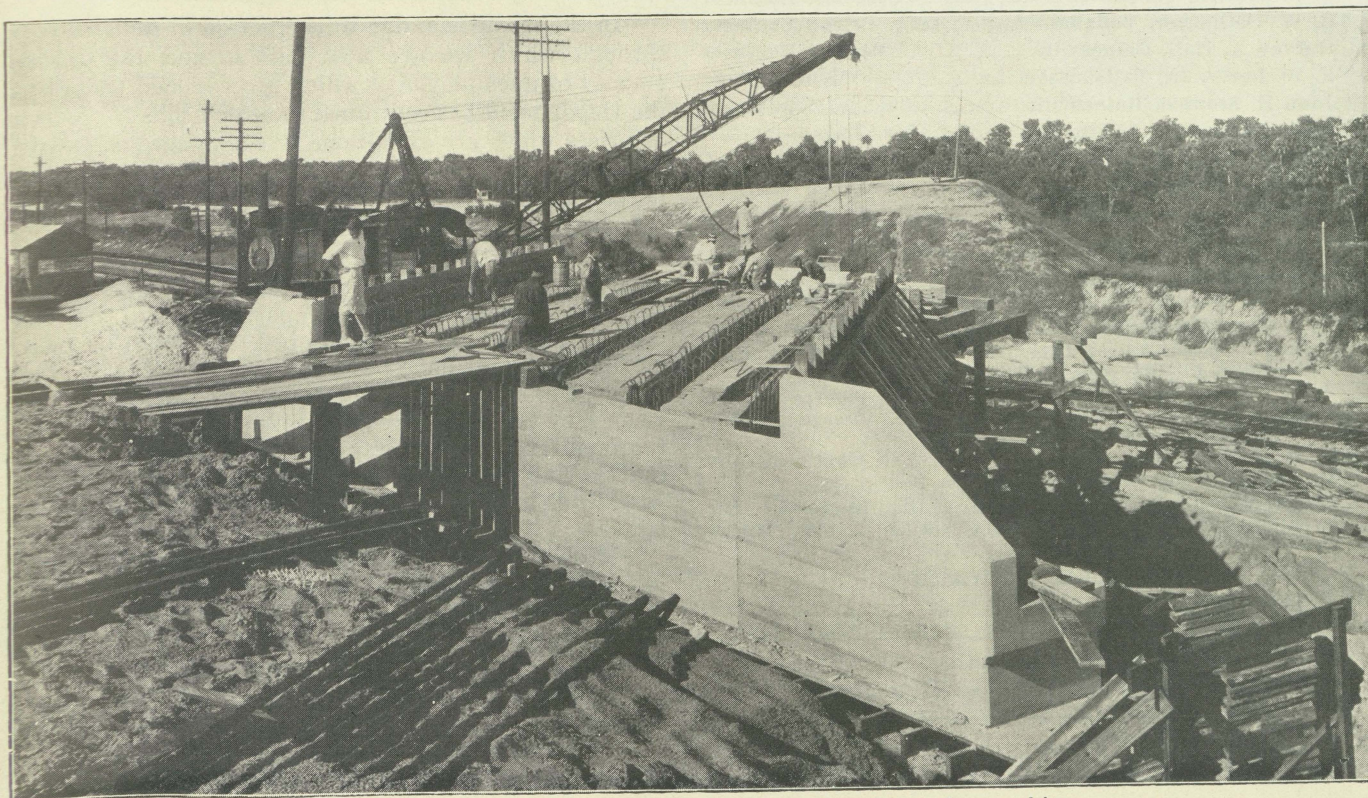
This is Melbourne and is also the point where State Road No. 24, leading from the interior, intersects.

We are back now traveling again along the bluff of the Indian River. The little cove is known as "Palm Harbor" and looks as if it were made by the hand of man as an harbor, but is the work of nature. The bridge you see under construction at the right will soon be completed.

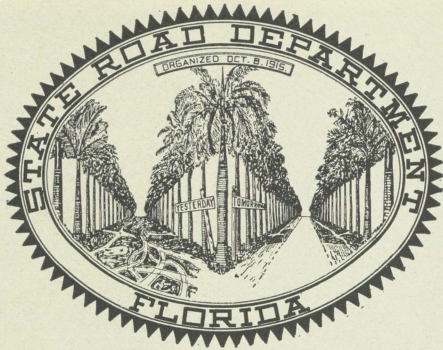
(Turn to page five)



Project 597—Road 4—Dixie Highway South of New Smyrna



Overhead Crossing, Project 691, St. Lucie-Indian River County Line



Florida Highways

Published Monthly
Official Publication of the State Road Department

PERSONNEL OF DEPARTMENT

F. A. HATHAWAY (*Jacksonville*), *Chairman*
(*Official Residence, Tallahassee.*)
E. P. GREEN, *Bradenton*
W. J. HILLMAN, *Live Oak*
J. HARVEY BAYLISS, *Pensacola*
I. E. SCHILLING, *Miami*
WALTER P. BEVIS, *Tallahassee, Secretary.*

PERSONNEL OF EMPLOYEES IN GENERAL CHARGE OF THE WORK OF THE DEPARTMENT

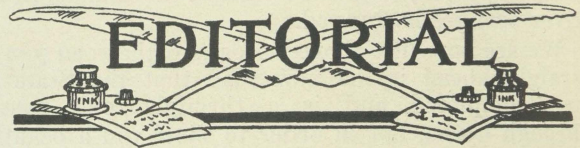
Engineering Division

J. L. Cresap, Tallahassee.....State Highway Engineer
L. K. Cannon, Tallahassee.....Ass't. State Highway Engineer
G. L. Derrick, Tallahassee.....Bridge Engineer
C. W. DeGinther, Tallahassee.....Ass't. Bridge Engineer
Harvey A. Hall, Gainesville.....Testing Engineer
F. W. Berry, Jr., Tallahassee.....Office Engineer
John R. Stewart, Gainesville.....Supt. of Equipment
R. L. Bannerman, Marianna.....Div. Engr.—1st Div.
Counties—Bay, Calhoun, Escambia, Franklin, Gadsden, Gulf,
Holmes, Jackson, Jefferson, Leon, Liberty, Okaloosa, Santa
Rosa, Wakulla, Walton, Washington.
J. H. Dowling, Lake City.....Div. Engr.—2nd Div.
Counties—Baker, Bradford, Clay, Columbia, Dixie, Duval, Hamil-
ton, Lafayette, Madison, Nassau, Suwannee, Taylor, Union.
R. J. Cassie, Fort Pierce.....Div. Engr.—3rd Div.
Counties—Brevard, Indian River, Martin, Okeechobee, St. Lucie.
L. B. Thrasher, Ocala.....Div. Engr.—4th Div.
Counties—Alachua, Citrus, Lake, Levy, Gilchrist, Marion, Putnam,
St. Johns, Sumter, Flagler, Volusia.
A. W. Kinney, Lakeland.....Div. Engr.—5th Div.
Counties—Hernando, Hillsborough, Manatee, Orange, Osceola,
Pasco, Pinellas, Polk, Seminole.
R. C. Fergus, Fort Lauderdale.....Div. Engr.—6th Div.
Counties—Broward, Dade, Monroe, Palm Beach.
Henry Wilson, Punta Gorda.....Div. Engr.—7th Div.
Counties—Charlotte, Collier, DeSoto, Glades, Hardee, Hendry,
Highlands, Lee, Sarasota.

Auditing Division

S. L. Walters, Tallahassee.....Auditor

B. A. Meginniss, Attorney for the Department,
Editor and Business Manager



ROAD DEPARTMENT BORROWS \$2,000,000.00

Acting under authority granted by Chapter 12297, Laws of Florida, 1927, the members of the State Road Department at the quarterly meeting held October 3rd, unanimously adopted a resolution authorizing the borrowing of \$2,000,000.00 for a period of ninety days at a rate of interest not to exceed 6 per cent. Investigations set on foot immediately after the adoption of the resolution have already revealed the fact that the money can be secured at 4 per cent interest, and the loan will be consummated and floated on November 1st.

The following, which appeared in the press of the State immediately after the adoption of the resolution in question, reviews the facts which make the borrowing of this money necessary and desirable:

In connection with the adoption of resolution authorizing the borrowing of money to carry on operations of the State Road Department until the first of the year the Chairman made the following statement:

"It was anticipated in the early Spring that there might be considerable decrease in the revenues of the Department, due particularly to the falling off of the consumption of gasoline, and to avoid a serious curtailment of the Department's operations the borrowing power was requested from the Legislature and granted by practically unanimous vote of both the House and Senate. As a matter of fact, the condition requiring the exercise of this power has not materialized until now, and it will be necessary only to carry these loans for a period of 90 days, this always being the low ebb period of the Department's receipts.

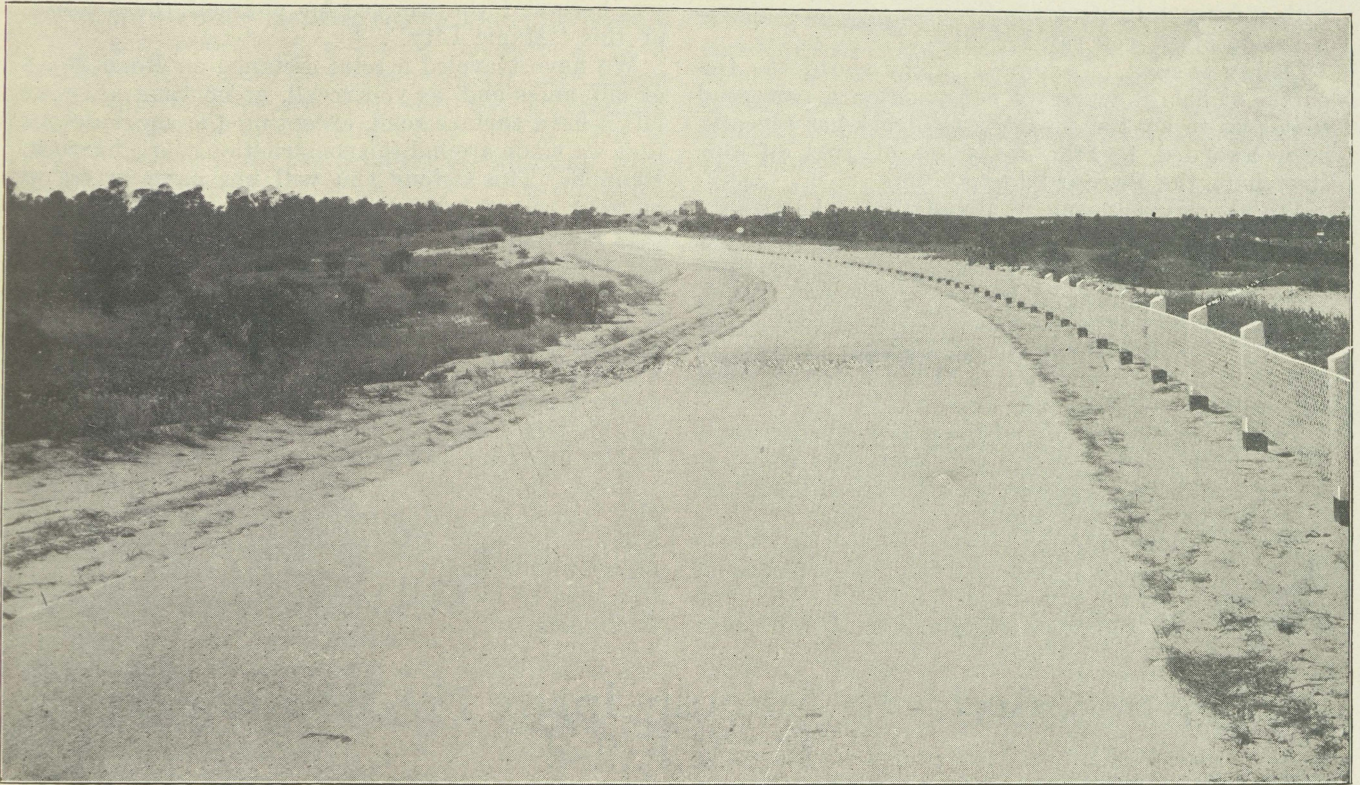
"In the meantime, due to the period of depression through which we are now passing and the large amount of unemployment which is occasioned thereby, the Department has continued to receive bids for work at prices which are exceptionally advantageous, being from 15% to 20% below what might be expected in normal times."

Further discussing the matter, the Chairman said: "It is apparent to every one that the amount of money which would be saved in pursuing uninterruptedly the operations of the Department, will be far greater than the amount of interest that would be paid on the loans that have been authorized. Besides, the people will have the use of the roads and at a time when they were never needed more. As it is, the main thoroughfares of the State are open for the use of tourists and visitors as well as our own citizens, which would not have been the case had contracts not been let.

"It should not be assumed, however, from what has been said that the Department has let contracts in excess of its budget or of the revenue which was anticipated at the first of the year."

Concluding, the Chairman stated:

"It is expected by the Department that the money will be easily secured through the banks of the State and at a rate of interest below the maximum fixed in the statute."



Project 692—Near Indrio

STATE ROAD NO. FOUR

(Continued from page three)

This is the Sebastian River and is the end of Brevard County. Brevard County is the longest county in the State, being over 60 miles in length.

Next we come to Vero Beach, the county seat of Indian River County, another new county.

This is Oslo, and the construction you see is an overhead crossing which the Department is building on its new location between Vero Beach and Ft. Pierce. The paving on this new project is about 85% completed and when this structure is finished, which you see will be in the very near future, travel will be diverted on to that road as this over-pass will eliminate the dangerous railroad crossing we just came over.

This is Ft. Pierce, the county seat of St. Lucie County, also the terminus of another cross-state road, known as No. 8. This road will take you to the interior of the State through what is known as "The Ridge Section". This stretch of road we are now on south of Ft. Pierce was just completed this past summer. The old road follows the banks of the Indian River and is like the stretch at Cocoa—it is very picturesque. We are now crossing St. Lucie River and it is into this river that one of the main Everglades Drainage Canals empties, leading direct from Lake Okeechobee.

We are now at Stuart. This stretch of road we are now traveling south of Stuart will be eliminated in a very short time as part of State Road No. 4, as off to the right about a mile the Department has completed the grading and just recently awarded contract for the surfacing of a new road from Stuart to Jupiter.

This is quite a change from the level country we have been traveling heretofore. One would think

they were getting into a mountainous section. It is generally conceded that these high rolling sand hills were at one time the ocean bed, as they have every appearance of such.

The Loxahatchee River is now to be seen. The new bridge has just been completed and opened to traffic. At this point the Indian River joins and empties into the Ocean through what is known as "Jupiter Inlet," and is quite an important navigation point. You will notice the Government light house just to the left.

This stretch of road has just recently been completed and is part of our State Road No. 4. It is here that we intersect the ocean shore line. You can see by the large steamers just off shore that the Gulf Stream in its southerly course comes very close in and it is due to this stream that this section is blessed with its wonderful climate. We follow the ocean bluff for about five miles and this stretch is one of the prettiest views along the entire coast. Inland you see the rolling character of the land that looks as if it is inviting someone to add a touch of humanness to the beautiful terrain that nature has already planned.

We are now leaving the ocean front to come in behind Lake Worth and enter West Palm Beach. Just across that beautiful body of water where those tall buildings are is Palm Beach, one of the winter playgrounds that is the objective of many northern visitors.

This is Lake Worth, but it hardly seems from the developments along the road as if we have passed from one city to another, but such is the case. Lake Worth has many attractions to offer its northern visitors and from this point on we will pass through towns continuously where the city limits of one town joins another. What you say for one

with reference to its attractiveness and advantages it has to offer, you say for all.

Delray is next. Leading straight ahead the Department has in course of construction a new road that goes to Ft. Lauderdale. Contract has recently been awarded for the surfacing of part of this stretch to the Broward County line.

We are now entering Ft. Lauderdale, the County seat of Broward County. If we had time to tarry here and go over to the ocean we would see some more wonderful scenery typical of the East Coast, as well as the developments. We have just let a contract for the surfacing of another stretch of new road through this city to Dania Canal, a point five miles below here.

This is Hollywood, one of the major developments of the East Coast. Just a few years ago this was all open country. Now you see a beautiful town that extends from the back country to the ocean.

We are now entering Dade County, of which Miami is the county seat and is the terminus of Road No. 4. There is no need to attempt to tell you anything with reference to Miami as I will leave

you here and you can see for yourself the beauties of this "Magic City".

We have traveled a total distance on Road No. 4 of 397 miles and, as you recall, at no time have we left a hard surface road, excepting the short detour that we made around the construction work north of Bunnell. This detour you will not have to travel on your return trip. Of this 397 miles of hard surface road the State Road Department has completed 237 miles and has under contract for construction 42.5 miles, which leaves a balance of 87.5 miles outside of the city limits, of county constructed road that we traveled and which the State Road Department will replace in the near future with its standard construction, which you have become familiar with on this trip. Also we crossed a total of 3,270 lineal feet of bridges constructed by the Department.

Road No. 4 carries a huge volume of traffic and although it can not be called the "Main Street" of Florida, it really deserves the name of the "Main Street of the East Coast" and also forms a part of the attractive Coastal Highway leading from Maine to Florida.

Highway Accidents Seriously Injure 759,060 Annually; 25,302 Killed

Analysis of Causes and Methods for Prevention

By **CHARLES M. UPHAM,**
Director American Road Builders' Association

EVERY forty-one seconds someone is either killed or injured in highway accidents in the United States. During the five years ending with 1927 the staggering total of approximately 3,446,370 persons were reported injured and 114,879 killed in traffic calamities, most of which were avoidable. The annual casualty toll of highway accidents is more than twice as great as the entire number suffered by the nations' forces in the World War.

Why does the traffic menace blot out so many lives each year? For the first time since the beginning of serious traffic congestion that question has been answered through the combined efforts of several national safety organizations, among them the Hoover Conference on Street and Highway Safety, the American Road Builders' Association and the National Safety Council. Several years of scientific research into the causes and results of highway accidents have brought to light the many hazards that result in calamity to motor vehicles and to pedestrians. Foremost among the causes is carelessness. Foremost among results is the five-year loss of nearly 3,500,000 injured, 114,000 killed and an economic loss exceeding three billion dollars. The result of their findings has been a decrease in the number of casualties per motor vehicle registered in the nation, although the total number of deaths is increasing at a rate of nearly 2,000 annually.

One of the most vital bits of information uncovered by highway safety statistical research is the fact that the annual fatality record of the street and highway includes over 7,000 children of school age, the majority of whom were killed while

playing in or crossing the thoroughfare. Pedestrians compose approximately two-thirds of the total number of deaths, nearly all of which have been pronounced avoidable.

Statistical Research

Statistical research has uncovered many peculiar facts in regard to the causes and results of highway accidents. The knowledge of these facts has given national organizations interested in the public safety movement a basis upon which to work and is expected to bring a noticeable reduction in the accident casualties within a few years. Paramount among the conclusions that have been drawn from statistics collected from various rural districts and municipalities are:

1. That the largest number of accidents occur between five and six in the afternoon when business men and workers are returning hurriedly to their homes. At this period of the day congestion on the street and highway is at its height. The psychological phase also enters into the fact that accidents are numerous at this hour. Drivers and pedestrians who are wearied from a day of labor are not as mentally alert as during the earlier hours of the day, and as a rule are in a hurry to reach their homes. Confusion and carelessness result, and from them—accidents.

2. That the accidents involving pedestrians are increasing at a rate much greater than the rate of increase of other types of accidents. An example of this was found in Massachusetts, where the registration of automobiles has increased 160 per cent during the past six years. In that state the col-

lisions between automobiles have actually decreased, while the calamities involving pedestrians have nearly doubled since 1921. The pedestrian evil seems to indicate that the American motorist is becoming adept in the art of dodging other vehicles, but is unable to cope with the problem of the pedal traffic on city streets.

3. Less than 5 per cent of all accidents are the result of faulty mechanism of vehicles or improperly designed roads and streets. The human machine is responsible for the remaining 95 per cent of the accident total. Carelessness and incompetency have been found to be the chief illnesses of the human machine resulting in disaster.

4. The annual death of 7,000 children of school age has caused an intensive research into the causes of these youthful mortalities. It has been found that more than twice as many children between the ages of 6 and 12 are killed than between any other similar group of years between 1 month and 70. Children at the age of 6 are just starting their daily journeys to and from the schoolroom and for the first time are their own masters on the street. They have no fully developed ability to judge speed and distance and as a result are the victims of the accident evil. The reasons for fatalities between the ages of 6 and 12 are for the most part psychological and avoidable through proper education of the child.

5. While the total number of accidents resulting from recklessness by intoxicated drivers is small as compared with total accidents reported, they more often result in mortalities. Drastic legislation in nearly every state has brought the number of deaths from this source to a considerably lower level than in 1921. In New York State intoxicated drivers were responsible for 458 personal injuries in 1925, and the licenses of more than 1,600 intoxicated drivers were revoked during the same period.

6. The economic loss resulting from highway accidents is estimated at \$50,000,000 per month, or \$600,000,000 per year. This conclusion has been drawn from reports of various insurance companies and police departments of the country.

Psychological Research

A great mass of data has been collected by organizations investigating the psychological phase of highway accidents. The outstanding single mental condition giving rise to casualties is fatigue, which, in turn, causes carelessness, recklessness and a general decline in the ability of a driver or pedestrian to act speedily and accurately. In the child problem, general inattentiveness has been found the chief cause of fatalities and injuries. The child at play is a bundle of trembling nerves and in the joy of the game is almost unconscious of any world but its own. He may run into the street and, being there, continue his pleasant pastime without regard to the motorist. Every driver has some knowledge of the irresponsibility of the child at play. Such knowledge excites the driver and dangerous confusion results. The same condition prevails with child pedestrians, who have contributed an amazing portion of the highway mortality.

Mental and physical defects of drivers have caused a large number of accidents, although general carelessness is far more important.

Thoughtlessness and poor judgment are the cause

of more than 40 per cent of all accidents. These classifications include jay-walking, inattention, confusion, inexperience and recklessness. The classification, however, overlaps the causes of accidents attributed to carelessness, and should not be confused as distinct causes within themselves.

The American Road Builders' Association is now launching a campaign to cut down the toll of the street and highway. The organization has conducted an exhaustive investigation into accident causes and results, and its conclusions in fine are that the individual alone holds the key to the solution of the accident problem.

Ultimate Objectives

The ultimate objectives of the general movement for highway safety are as follows:

First, the education and regulation of pedestrian traffic as well as motor vehicle traffic. Pedestrians and motorists are to be considerate of each other and share the necessary delay caused by courteous and cautious conduct. Along rural highways, where there are sidewalks, pedestrians will be expected to use them. Where sidewalks are unavailable, pedestrians will be expected to use the extreme left side of the road facing the traffic flow. In cities pedestrians are to be instructed, urged and even required to keep within the boundaries of designated safety zones and crossing places, and where there is congestion to cross only with the traffic. Pedestrians as well as drivers are to be subject to the traffic regulations, the violation of which would be considered a misdemeanor.

Second, the adoption of a standard code of motor vehicle laws in every state of the union. This is expected to reduce accidents resulting from ignorance of regulation and custom. A code has been drawn up by the Hoover Conference as a model for state adoption. The code should include a thorough examination of all drivers.

Third, education in safety and accident prevention, as the American Road Builders' Association recommends, will be incorporated in the curricula of elementary schools, both public and private, parochial schools, night schools, vocational schools and citizenship schools. It will also be carried on through educational contests, organized playground training, schoolboy patrols, boy and girl scouts, and junior safety organizations. More advanced training in safety and traffic matters will be developed in schools for teachers. General education of the public will be undertaken through newspaper and magazine publicity, posters, motion pictures, radio lectures, safety clubs, safety programs at public meetings, churches and parent-teachers organizations. A pledge card binding the signer to the use of courtesy and caution will also be issued by the Association to all drivers and pedestrians willing to cooperate in the movement.

Fourth, motorists will be asked to protect the design and materials of their automobiles by periodic adjustment and replacement. Particular emphasis will be put on the construction and adjustment of headlights, steering apparatus and brake mechanism.

Fifth, a comprehensive program of street widening and the elimination of grade crossings will be carried out throughout the nation. Grade crossing

accidents account for approximately 9 per cent of the total highway traffic deaths. The railroad hazard is rapidly decreasing, however, as the result of installation of signals and gates, reduction in the number of crossings and safety legislation.

Highway Safety Club

The October campaign of the American Road Builders' Association will be focused around a highway safety pledge card, which will be distributed through the schools, churches, newspapers, magazines and various other agencies. This card binds the signer to the practice of reasonable courtesy and caution in his conduct while on the street or highway. In return for his expression of willingness to cooperate in the highway safety movement the signer of this pledge will be furnished without charge a membership card in the Highway Safety Club. The Highway Safety Club consists of all who have expressed their willingness to do some little thing each day to remove the hazards of the public street and highway. The Association believes that the members of this Club may be used in the future to promote the cause of highway safety.

Accidents to Be Reduced

The registration of automobiles in the United States continues to increase. The hazards of the streets and highways are receiving a similar impetus, and if the loss of life continues its climb, highway accidents will soon be costing the United States 30,000 lives each year, in addition to approximately 900,000 casualties. That is on a basis of 30 casualties necessitating medical attention to every death, as estimated after careful study by Colonel A. B. Barber of the United States Chamber of Commerce and Director of the Hoover Conference. Such an alarming toll will not occur if present plans materialize. The constant education and regulation of pedestrians and motorists will have reduced the hazards to a minimum, and eliminated the habitual carelessness which is now the chief obstacle to public safety.

The cooperation of motorist and pedestrian in behalf of public safety can save thousands of lives during the next few years. Only when that cooperation is freely given will the hazards of the highway be cut to a minimum.

Ninety-five per cent of all accidents are the result of failure of the human machine rather than faulty mechanism or engineering. No amount of rules and regulations will eliminate these accidents unless they are embodied as a portion of the simple code of courtesy and caution. Every individual, adult and child, is urged by the American Road Builders' Association to participate in a general movement in behalf of highway safety, and he may express his desire and intention to do so by signing the pledge printed below. Upon returning this signed pledge to the offices of the organization at Washington, D. C., a membership card in the Highway Safety Club will be furnished free of charge, to be kept as a permanent reminder of responsibility.

PLEDGE

KNOWING that suffering, sorrow, and unhappiness usually follow street and highway accidents, I will cooperate in an effort to avoid them by using **courtesy** and **caution** at all times, and especially when driving an automobile; I will observe traffic regulations and drive my car so that it may be controlled and stopped within a safe distance.

I will instruct all persons in my employ and urge others to use **courtesy** and **caution** at all times and never exercise haste to the point of creating a hazard.

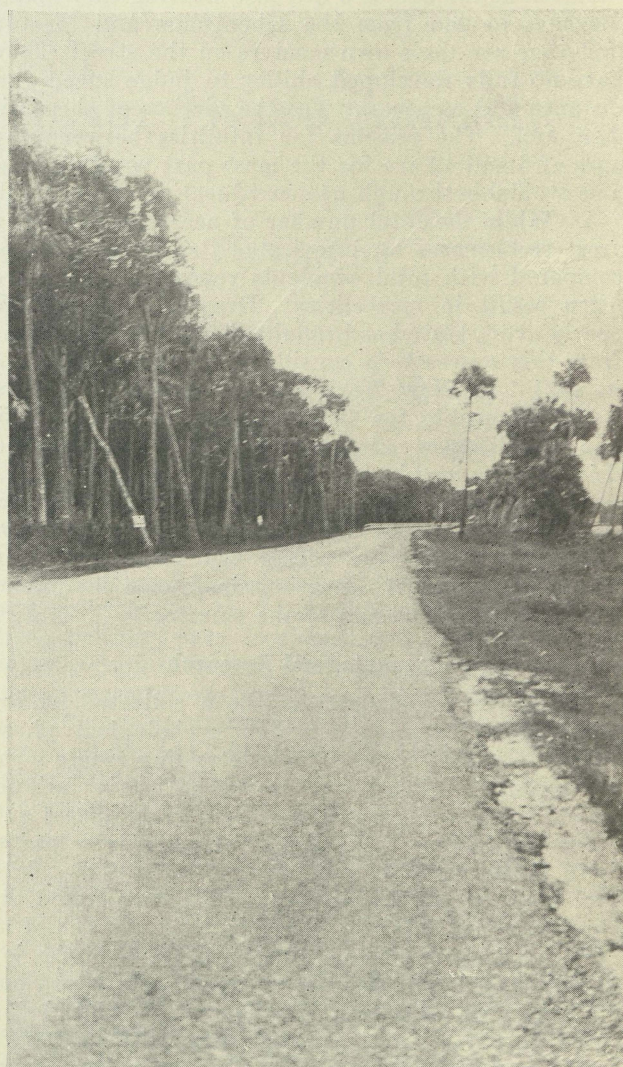
I endorse the movement for Greater Highway Safety and will lend my aid in every practical way.

The above I promise upon my honor.

Address

Sign here.....

Sign and return to American Road Builders' Association, Washington, D. C., and receive Membership Card free.



F. A. Project 40-D. Road No. 4 in Brevard County, South of Indian River City.

Three-Ring Show.

A moving-picture producer, on filming "The Passion Play," noticed that there were twelve Apostles. "Oh, that won't do," he said; "this is a big production. That number will have to be increased to twenty-four."—Outlook.

A Message From the Man Up Front

By A. L. BROWN, Greeneville, Tennessee

(Editorial Note. The attached article by Mr. Brown is an address delivered by him from Radio Station WWNC, Asheville, North Carolina, September 29th, and was made possible by the Safety Department of the Southern Railway which, according to the author, maintains a splendidly organized Safety Department. The same talk has been delivered over Stations KDKA, Pittsburgh, and WLW, Cincinnati. Florida Highways expresses its thanks to Mr. Brown for the privilege of reproducing it herewith.)

AS WE SIT in our automobile at a grade crossing to await the passing of one of those great passenger trains that take us so swiftly and safely to our destination in these modern times, it's a safe bet that we rarely give even a passing thought to that unappreciated man who sits in the cab of the engine doing all that is humanly possible to keep from killing some people who seem *determined* to be killed. So tonight I come to tell you something of the lives and experiences of the engineers of our fast trains and some of the nerve-racking experiences that they pass through caused largely by **you** who try to beat the train to the crossing. I am not going to worry you with figures, most of us are already familiar with the appalling loss of life caused by the careless driver. But this shall be a simple message to you who cause the accident by careless driving, from the one sitting in the cab of the engine doing all in his power to avoid this accident.

I wish it were possible for every man or woman who drives a car to sit in the cab of a locomotive pulling one of our fast trains, and for one trip, live the life of the engineer. If this could be, I am sure there would be fewer grade crossing accidents. You would soon learn that if the hand on the wheel was guided by the same care and thought as the hand on the throttle, your life would be as safe in a car as on a railroad train. Then too, this trip would cause the development of a deeper sympathy for the man up front, for I doubt very much whether half of the autoists who might take this engine ride would stay in the cab longer than the first stop. I have letters now from men who have run the engines on our fast trains for a quarter of a century who have quit the road on the verge of a nervous breakdown for no other reason than the driver who takes a chance at the crossing. But since you cannot take this trip on the engine we will in our imagination accompany one of our engineers on his fast run from Knoxville to Bristol, Tennessee, which is a typical run, and the types of men found on this division are found on all the others, and the incidents I relate have all happened just as I tell them, and the message sent back to you by the engineer comes from his heart.

But before we begin our run I expect it would be a good idea for me to tell you something of the men who are to handle our train, maybe you will feel better and safer as you speed along the rail, and what I tell you may come as a surprise to some of you who still think the railroad man lacking in religion and some of the finer qualities. I pause right here to say that there is no higher calling than that of a good railroad man, and no finer set of men

than those who superintend and run our trains today.

Fully 80% of the railroad men of today are Christians. Remembering the olden days when railroad-ing was not on the high plane it is today this may sound strange to you. A large majority of this 80% are church members and workers. Many an engineer I know utters a word of prayer before beginning their run. I remember once as I was about to make a trip with one of the best men I ever knew, I jokingly said to him, "Charley, I'm afraid to ride with you this trip; you are late and might run too fast to suit my quality of courage." He promptly replied, "Climb up Brown, God and I will take you safely through." It is needless to say that these two friends did carry me through in safety. In passing I call your attention to this fact: With the coming of religion into the railroad man's life and the consequent passing out of whiskey-drinking and other excesses, the wrecking car and trouble train have almost become obsolete on the railway lines.

It is leaving time at the Knoxville terminal, and we must begin our eventful trip. Already the air has been tested and found in good working order. Every part of the train that is subjected to any strain whatever has been carefully inspected. The great iron horse is panting as if anxious to start on the journey that will carry its passengers into the many walks of life, some into the joys of re-union and perhaps others out of the sorrow of parting. As we climb into the cab we are thrilled because we know the very positive rule of the railroad company that prohibits any one in the engine save those in charge, and so we feel that we are entering a new world. The engineer we are to make the trip with greets you with a hearty hand shake and a smile. He has a small Bible in his inside pocket. The fireman is a Christian. Right here let me explain, in all my investigations I have found that what I have said or shall say about the railroad I am familiar with applies to every railroad in the South as to the Christian make up of their men.

We are off at last. The engineer has read the train orders and passed them to his fireman as a double precaution. Our train swings onto the east bound double track and we slowly creep through the terminal yards gathering speed as we reach the open country. Just as we cross the yard limit we notice a red signal down the track a little ways changes to green, the engineer calls to his fireman, "Clear board," and away we go into the next block knowing that all is well. If perchance the green had been red, our train would have come to a stop and proceeded slowly until we knew the reason for the danger signal. But I am not going to tell you anything about signals tonight, if WWNC will let me, later on I will tell you all about the wonderful automatic train control that has just been installed along the road we are now running over, reducing the possibility of accident to a minimum. I want you to know what this means to you.

Before you have ridden many miles you will learn two important lessons in railroading. One is that the engineer is required by the most iron-clad rule to call all signals to his fireman, so that he must keep his eyes always ahead and be on the alert. The other is this: In all the years I have been associated with the man up front I have never heard him utter a single word of conversation while his engine was running either to me or his fireman. Always sitting with steady gaze ahead and hand on the throttle. Contrast this with the driver of an auto who carries on a spirited conversation while speeding along, never thinking of a crossing until too late, for no autoist can hear the coming train with his engine and his tongue running at the same time. At the next station you comment to your host on his silence during the run, and he sends back this message to all autoists. "Tell them when they approach a crossing—for all grade crossings are plainly marked now—to cease all conversation in the car, look, listen and cross the track in low speed."

To show you how well founded this advice I recall during the last two years that at two different times automobiles have been deliberately driven into the engine, striking it up near the cab. Fortunately the occupants of each of the cars were able to explain that they were talking and did not see the crossing sign or hear the train.

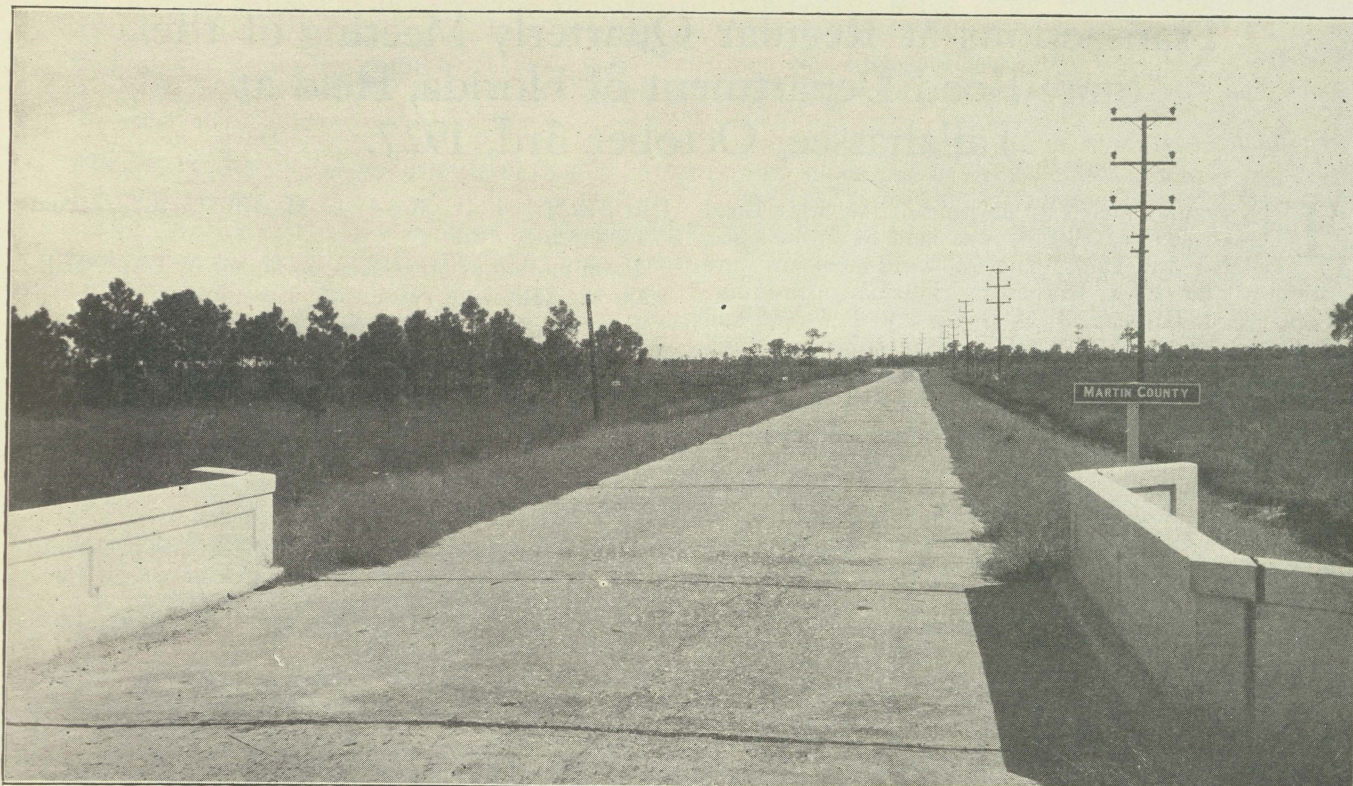
Unless you are familiar with railroad rules you will wonder why our friend the engineer insists on blowing his whistle so many times the two long and two short blasts, for until we get used to it we jump each time. At the next stop we ask him if it is necessary to waste so much steam, but he tells you that this too is a very strict rule, and is a road crossing signal, and that is another reason for his careful attention ahead. I have in the past kept a close check on my friends along this line and found them 98% perfect in blowing the road crossing signals, and when we ask him for a message to the auto drivers along in this connection our engineer squares himself on his seat, glad to rest a moment while the fireman is taking a tank of water, and he tells you that this constant blowing for crossings is the greatest safeguard that can be thrown around you who drive—*If you heed it*. In checking some of our main highway crossings I have seen some funny things happen. Several times I have seen impatient drivers slow down for a crossing and begin to blow his horn as if to warn the approaching train to look out. They were probably absent-minded drivers, and right here developed a dangerous situation, for absent-mindedness has caused a large per cent of our grade crossing accidents. The blowing of crossing signals has gotten to be a habit with our engineer. When he sees the crossing sign his hand goes automatically to the whistle cord. Why not you who drive, our friend asks, train yourselves to observe every signal whether it be on highway or grade crossing?

We are still running on double track and as we run over a slight grade we come to a long piece of straight track and see before us in the distance two things, one is a freight train approaching on the west bound track. Between us and the freight is a grade crossing of one of the main highways. Standing on the west side of the crossing is a sedan car waiting for the freight to pass which you with

more or less horror calculate will be about the time you reach the crossing. The engineer sees it too, and sounds the road crossing blasts one after another which the noise of the freight evidently drowns out. You see the muscles of his face become rigid, the fireman has seen it and jumps to his seat to be on the lookout if emergency arises. With throttle closed and hand on the brake ready, still sounding the whistle in that short moment the question is, will that driver wait until he can see far up the east bound track before starting, or will he in the present day hurry forget there might be a train coming down against the freight on the other track and start to cross as soon as the freight caboose has cleared the crossing? All this happens in a moment, but you feel as if you had lived hours. The freight clears the crossing, you see that the car has started not a hundred feet ahead of the passenger train, can he make it? The fireman calls CAR, for the engineer cannot see the west side of the crossing. You close your eyes as he reaches for the emergency brakes, but not until you have seen the car by one great effort clear the rail by a bare engine length, and as you do not feel the impact of the collision or hear the crash you look across to your silent partner and see his pale face relax as he wipes the perspiration from his face, then he breaks the silence of the trip by remarking, "Something like that happens most every day." You wonder what will be his message sent to you motorists when we make the next stop, and when you hear it you know it comes from the heart. "Please tell everybody who drives a car that when they wait for a train to pass at a crossing over a double track, to stop their engine, and after the last car of the train has passed the crossing to count twenty-five before starting their engine and always look to the right before crossing the track. For a double track crossing quadruples the danger."

We are now passing through a little village where our train does not stop. All is attention on both sides of the engine cab. Just ahead you see a grade crossing coming up from a river bridge on a rather steep incline, with a curve before reaching the railroad. The fireman pointed to the crossing and said, "Bad accident there last week." This was one of the few sentences he ventured during the trip, for you have already found that an engine ride is not a social event. But as the train turned over a long hill on a down grade, the only time a fireman gets a breathing spell, he slipped into the seat with you and told you of a family who were not acquainted with this part of the country, and did not see the crossing, and the unusual noise in crossing the bridge kept them from hearing the crossing signals, but seeing the hill ahead they had speeded up only to strike the engine back of the pilot. The car was picked up and torn to pieces and three were killed. As our friend oiled his engine at the next stop he asked me to tell you that when you cross a bridge that leads directly to a grade crossing on an incline never try to make the run over it until you have stopped and changed into second gear, and looked and listened.

I told you in the beginning of the Christianity of the railroad man of today. As we passed through a mountainous section the fireman pointed out the



Project 694—Beginning of Project—Looking South.

outlines of a very dangerous looking curve where the track had been before it was straightened out and made safe, and told this story at the next stop. A few years ago when this piece of track was being used, a Christian engineer ran his train daily around this curve with more or less dread. He had a preacher friend who lived up the valley a little way from the curve. One day this preacher friend asked the engineer as token of friendship to blow the crossing signal to him every time he came to that curve. The engineer agreed to do it on one condition, and that was that every time he blew the greeting signal the preacher friend should pray for him to safely negotiate that curve. It was a bargain. Not many months after that as the train was speeding through the valley and beginning to slow down for this dangerous curve, the engineer according to promise reached for his whistle and blew the signal to his friend. Hardly had he finished when the engine left the track and turned over down a high embankment. When they came to look for the engineer in the wreck they found that he was thrown clear of the engine and landed on the ground unhurt, and today John Fant is sure that the prayers of that righteous man saved him.

We are now rolling into our terminal, and we know that soon we must say good bye to our friends of the engine. As we come to a stop we notice a great change has taken place in our friend. The

look of anxiety has given place to a smile, and as he tells you goodbye the fireman motions you to one side and asks, "Do you know the story of that man you have been riding with?" Then he told of a run this man was making one night when ahead of him he saw an open switch some tramp had tampered with, but it was too late to stop. His engine toppled over and down a bank, and as it went this engineer called out, "God save the passengers!" and when they came to take stock of the injured it was found that not a person was hurt, not even our engineer.

These are just a few of the many stories that I know to be true, that I could tell you to show the unselfish part our man up front plays in his effort to save you careless drivers, and I only wish I could hand you his feelings for a little while as he sees you rushing along trying to beat him to it or unmindful of his whistle. Suppose you were running along the highway, and a little child crossed your path, and you came within a foot of crushing out its precious life, or suppose you killed that child, how would you feel the rest of your life? Then think of the man up front who cannot stop his engine as you can your car and his feelings when he is called upon almost daily to face the driver who risks. I am not a railroad man, but I love these men of iron and steel for what they have to go through with, and in bringing you this message I beg of you to think of the man up front, for this man has his mind on you.

Transactions at Regular Quarterly Meeting of the State Road Department of Florida, Held at Tallahassee, October 3rd, 1927.

THE regular quarterly meeting of the State Road Department of Florida was held at Tallahassee, October 3rd, 1927. The following members were present: Dr. F. A. Hathaway, chairman, presiding; Capt. W. J. Hillman, J. H. Bayliss, E. P. Green and I. E. Schilling. J. L. Cresap, State Highway Engineer; B. A. Meginniss, attorney, and W. P. Bevis, secretary, were also in attendance. The U. S. Bureau of Public Roads was represented by H. J. Morrison, of Gainesville, Federal Highway Engineer.

The minutes of the third quarterly meeting held at Tallahassee July 12th, 1927, were read and on motion of Mr. Bayliss, seconded by Mr. Green, duly approved.

Report of Chairman.

The Chairman submitted his regular report of the operations of the Department since the last quarterly meeting.

Project 640-A and 640-B.

Mr. West, of the West Construction Company, appeared before the Department to discuss his bid on the above project, as did also Mr. Nelson, of Nelson Brothers. John E. Taylor, Mayor of Stuart, also addressed the Department on the subject.

Project 654.

Mr. Tom M. Bryan, of Fort Lauderdale, representing S. P. Snyder & Son, the City Commission of Fort Lauderdale, the County Commissioners of Broward County, and the East Avenue Improvement Association, was heard by the Department in support of the bid submitted by S. P. Snyder & Son for the construction of the above project.

Mr. Geo. B. McGrath addressed the Department in support of the bid of R. G. Lassiter & Company, and Mr. Copeland in behalf of the bid of Morgan-Hill Paving Company.

Project 695-B.

Mr. Fayette Soule, representing American Bascul Bridge Corporation, appeared before the Department relative to the bid of his company on the above project.

Award of Contracts

PROJECT 640-A, Road 4—Martin County, Stuart to Olympia.

On motion of Mr. Green, seconded by Mr. Hillman, the following resolution was adopted:

Resolved, That the bid of the West Construction Company, Chattanooga, Tenn., submitted September 20th, 1927, for the construction of a sheet asphalt surface on an 8-inch compacted base on Road 4 in Martin County from Stuart to Olympia, and known as Project 640-A, in the sum of \$223,618.40, be and the same is hereby accepted, and the contract therefor be and the same is hereby awarded to the said firm.

The resolution was adopted by an affirmative vote of all members except Mr. Schilling, who voted "no."

PROJECT 640-B, Road 4—Martin County, from Olympia to Jupiter.

Upon motion of Mr. Green, seconded by Capt. Hillman, the following resolution was adopted:

Resolved, That the bid of West Construction Company, Chattanooga, Tenn., submitted September 20th, 1927, for the construction of a sheet asphalt surface on an 8-inch compacted base on Road 4 in Martin County, between Olympia and Jupiter, and known as Project 640-B, in the sum of \$307,918.96, be and the same is hereby accepted and the contract therefor be and the same is hereby awarded to said company.

The resolution was adopted by the affirmative vote of all members except Mr. Schilling, who voted "no."

PROJECT 654, Road 4—Broward County, Ft. Lauderdale to Dania Canal.

Upon motion of Mr. Schilling, seconded by Mr. Green, the following resolution was unanimously adopted:

Resolved, That the bid of S. P. Snyder & Son, Inc., Ft. Lauderdale, submitted September 20th, 1927, in the sum of \$301,380.25 for the construction of a bituminous-macadam road in Broward County, on State Road 4, between Ft. Lauderdale and Dania Canal, known as Project 654, be and the same is hereby accepted and the contract therefor be and the same is hereby awarded to said firm.

PROJECT 615, Road 5—Sarasota County, Venice to Myakka River.

Upon motion of Mr. Green, seconded by Mr. Bayliss, the following resolution was adopted:

Resolved, That the bid of E. F. Powers Construction Company, West Palm Beach, submitted September 20th, 1927, in the sum of \$108,003.94 for clearing, grubbing and grading and necessary drainage structure on Road 5 in Sarasota County, between Venice and Myakka River, and known as Project 615, be and the same is hereby accepted and the contract therefor be and the same is hereby awarded to said firm.

PROJECT 722, Road 43—Jefferson County, Lloyd to Wacissa.

Upon motion of Mr. Green, seconded by Mr. Schilling, the following resolution was unanimously adopted:

Resolved, That the bid of R. J. Carroll, of Lamont, submitted September 20th, 1927, in the sum of \$61,254.10 for clearing, grubbing and grading and necessary drainage structures on Road 43, in Jefferson County, between Lloyd and Wacissa, known as Project 722, be and the same is hereby accepted and the contract therefor be and the same is hereby awarded to said firm.

PROJECT 573-D, Road 2—Orange County; Overhead Crossing.

Upon motion of Mr. Bayliss, seconded by Mr. Green, the following resolution was unanimously adopted:

Resolved, That the bid of Cox & Bryson Paving Company, of Orlando, submitted September 20th, 1927, in the sum of \$27,930.46, for the construction of

an overhead crossing of the Seaboard Air Line and Atlantic Coast Line Railways, on Road 2, in Orange County, and known as Project 573-D, be and the same is hereby accepted and the contract therefor be and the same is hereby awarded to said firm.

PROJECT 717, Road 28—Bradford County; Overhead Crossing.

Upon motion of Mr. Bayliss, seconded by Mr. Schilling, the following resolution was unanimously adopted:

Resolved, That the bid of Gillespie & North, Green Cove Springs, submitted September 20th, 1927, in the sum of \$4,672.40, for the construction of an overhead crossing of the G., S. & F. Ry., on Road 28, in Bradford County, and known as Project 717, be and the same is hereby accepted and the contract therefor be and the same is hereby awarded to said firm.

PROJECT 706, Road 28—Putnam County, Keystone Heights to Palatka.

Upon motion of Mr. Green, seconded by Mr. Schilling, the following resolution was unanimously adopted:

Resolved, That the bid of Kidd Construction Company, Jacksonville, submitted September 20th, 1927, in the sum of \$30,751.80, for the construction of timber bridges on Road 28, in Putnam County, between Keystone Heights and Palatka, and known as Project 705, be and the same is hereby accepted and the contract therefor be and the same is hereby awarded to said firm.

PROJECT 661-B, Road 2—Lake County; Bridge Over Helena Run.

Upon motion of Mr. Green, seconded by Mr. Schilling, the following resolution was unanimously adopted:

Resolved, That the bid of Albinson Company, Bartow, submitted September 20th, 1927, in the sum of \$16,734.77 for the construction of a bridge over Helena Run, on Road 2, in Lake County, and known as Project 661-B, be and the same is hereby accepted and the contract therefor be and the same is hereby awarded to said firm.

PROJECT 695-B, Road 2—Lake County; Bridge over Haines Creek and Trout River.

Upon motion of Mr. Green, seconded by Mr. Schilling, the following resolution was unanimously adopted:

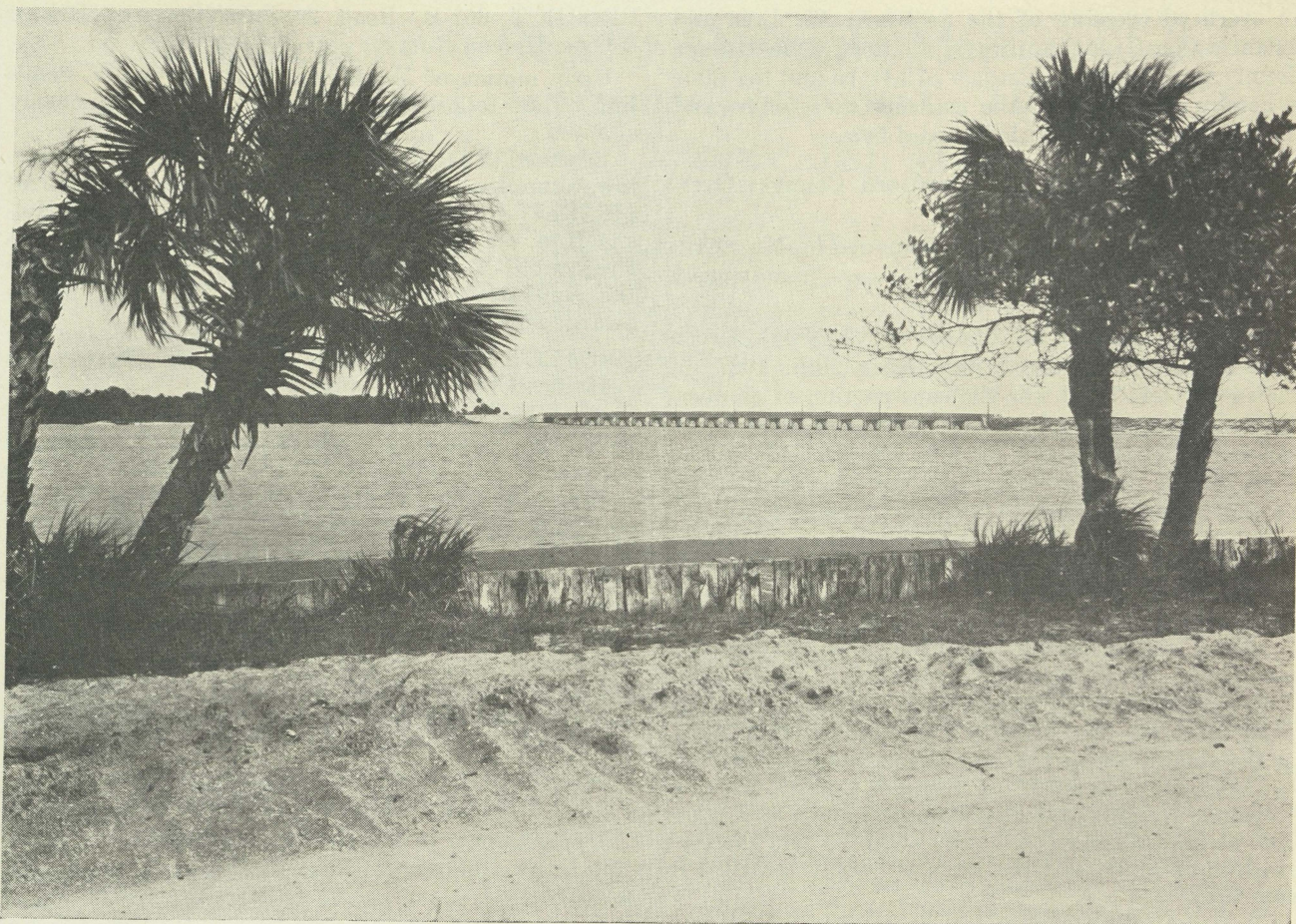
Resolved, That the bids of C. T. McKenzie Co., Miami, and American Bascule Bridge Corporation, Pensacola, submitted September 20th, 1927, in the respective sums of \$33,581.10 and \$15,987.00 for the construction respectively of the approaches and the Bascule span constituting the bridge over Haines Creek and Trout River, on Road 2, in Lake County, and known as Project 695-B, be and the same are hereby accepted and the contracts therefor be and the same are hereby awarded to said firms.

PROJECT 669 X AND Z, Road 27—Collier County, from Marco Junction to Naples.

Upon motion of Mr. Green, seconded by Mr. Schilling, the following resolution was unanimously adopted:



Project 604—Road 4—Dixie Highway, South End of Allanwood.



Project 39-A,B. Sebastian River Bridge and Approaches Looking East from Old County Road at South End of Old Bridge.

Resolved, That the bid of H. E. Wolfe Construction Company, Inc., St. Augustine, in the sum of \$200,-255.68, for the clearing, grubbing and grading and necessary drainage structures on Road 27, in Collier County, between Marco Junction and Naples, and known as Project 669 X and Z, be and the same is hereby accepted and the contract therefor be and the same is hereby awarded to said firm.

PROJECT 50-A, Road 14—Putnam County, between Palatka and Francis.

Upon motion of Mr. Schilling, seconded by Mr. Green, the following resolution was unanimously adopted:

Resolved, That the bid of L. M. Gray, Gainesville, submitted September 20th, 1927, in the sum of \$97,-923.84, for the construction of a surface-treated lime rock base on Road 14, in Putnam County, between Palatka and Francis, and known as Project 50-A, be and the same is hereby accepted and the contract therefor be and the same is hereby awarded to said firm.

PROJECT 659, Road 3—Clay County, from Duval County line to Orange Park.

Upon motion of Mr. Bayliss, seconded by Mr. Schilling, the following resolution was unanimously adopted:

Resolved, That the bid of Duval Engineering and Contracting Company, of Jacksonville, submitted September 20th, 1927, in the sum of \$34,748.46 for the construction of a surface-treated lime rock base on Road 3, in Clay County, between Duval County line and Orange Park, and known as Project 659, be and the same is hereby accepted and the contract therefor be and the same is hereby awarded to said firm.

Authority to Borrow Money

On motion of Mr. Schilling, seconded by Mr. Bayliss, the following resolution was unanimously adopted:

Whereas, By the terms of Chapter 12297, enacted by the Legislature of 1927, and approved by the Governor June 2nd, 1927, it is provided that whenever it shall appear to the State Road Department that the resources of the Department in any given year will prove insufficient to meet the obligations incurred by the Department in carrying out its budget of construction and maintenance work for such year, that the Department by and with the consent of the Governor shall be and is authorized and empowered to borrow money, not to exceed twenty per cent of the estimated resources of the Department for said year, at a rate of interest not to exceed six per cent per annum, for the purpose of meeting such obligations and carrying on the work of the Department for the remainder of the said budget year; and

Whereas, It now appears to this Department that the resources of the Department for the remainder of the present budget year will prove insufficient to meet the obligations incurred by the Department in carrying out its budget of construction and maintenance work for such year by reason of the following contingencies, that is to say:

1. Because of the decrease month by month in the funds coming to the Department from its share of the tax collected on gasoline;
2. Because of a deficit of \$300,000.00 in the amount expected to be received from the ad valorem tax for the State Road Fund;
3. Because of the elimination by the Legislature of

1927 of the ad valorem tax heretofore levied for the State Road Fund; and

4. Because of the appropriation to other purposes of a portion of the inspection tax on gasoline which formerly was apportioned to State Road funds; and

Whereas, Because of the advantageous bids which have been and are being received for road construction work, and the material contribution which the work of the Department makes to relieve unemployment during this time of depression, it has not been deemed wise by the Department to curtail its program of construction to an extent which would affect the general progress of the work; and

Whereas, It is now apparent to this Department that it is necessary in order to meet its obligations incurred for construction and maintenance work during the present year that the Department borrow such sum of money as shall be necessary to discharge its obligations and keep its work going for the period of the next three months, or until the monies derived from automobile license taxes shall begin to come in; now, therefore, be it

Resolved, by the State Road Department of the State of Florida, That this Department, by and with the consent of the Governor, do borrow the sum of two million dollars or so much thereof as shall be necessary for the purposes above set out, for a period of ninety days, and at a rate of interest not exceeding six per cent per annum.

Be it Further Resolved, That the Chairman of this Department be and he is hereby authorized and empowered to negotiate and effect a loan of two million dollars, or so much thereof as he may find necessary for the purposes aforesaid, for a period of ninety days, and to agree to pay therefor not more than six per cent interest per annum thereon, and that he be and he is hereby authorized and empowered to execute, sign and deliver such document, paper or debenture by, on behalf and in the name of this Department, as may be necessary to procure the said loan.

Be it Further Resolved, That in effecting the said loan the said Chairman be and he is hereby directed to give preference to banking institutions situate within the State of Florida.

Be it Further Resolved, That this Department does hereby officially find and certify that the said sum of two million dollars proposed to be borrowed as aforesaid, is less than twenty per cent of the amount estimated by said Department as the resources of said Department for said year.

Be it Further Resolved, That his Excellency, Hon. John W. Martin, Governor of the State of Florida, be, and he is hereby respectfully requested to give his official consent to the borrowing of the said sum of money as aforesaid, in accordance with the terms and provisions of said Act of the Legislature.

Adopted by State Road Department by unanimonous vote of all members, in regular quarterly meeting assembled this 3rd day of October, A. D. 1927.

Witness our hands.

F. A. HATHAWAY, Chairman.
W. J. HILLMAN.
I. E. SCHILLING.
E. P. GREEN.
J. H. BAYLISS.

(Signed)

Renumbering Roads in the State System

Upon motion of Capt. Hillman, seconded by Mr. Green, the following resolution was unanimously adopted:

(Turn to page sixteen)

Julien P. Benjamin DISTRIBUTOR

Russell Graders—all sizes
Monarch Tractors—The chain drive tractor
The Foote Paver
Heltzel Road Forms and Bins
Russell Road Equipment
Marsh-Capron Mixers—all sizes
Heltzel Side Walk, Curb and Gutter Forms
Sauerman Slack Line Cableways
Clyde Iron Works Hoists
Climax Engines and Parts
Sauerman Power Drag Scrapers
McKierman-Terry Pile Hammers—steam and air
"Dixoyl"—the perfect lubricant
Domestic Road and Power Pumps

Stock and Parts Carried in Jacksonville

Julien P. Benjamin Construction Equipment

Phone 5-0196 437 East Bay Street
JACKSONVILLE, FLORIDA

OUR SERVICE ON

Contract Bonds

and all other classes of Surety Bonds is unsurpassed.

American Surety Company of New York

Atlanta, Ga., Branch Office, 1320 Hurt Building.
H. N. HUTCHINSON, Manager.

STATE ROAD No. 4

It will be seen that the present issue gives emphasis to State Road No. 4 extending from the Georgia State line to Miami. All of the views presented are of scenes on and along this great interstate highway, and in addition, it is our pleasure to publish an excellent article which has been prepared by our Assistant State Highway Engineer, Mr. L. K. Cannon. The editor expresses his thanks to Mr. Cannon for this co-operation, and rejoices with the readers that a new and delightful style is added to our contributors. We are trying to induce Mr. J. L. Cresap, State Highway Engineer, to prepare the article on State Road No. 5 to be presented next month—future developments will reveal the strength of our powers of persuasion.

TRANSACTIONS OF DEPARTMENT

(Continued from page fifteen)

Whereas, The Legislature of 1927 has directed that this Department give to the State roads designated and declared by said session of 1927, appropriate numbers that to the said Department shall seem best; and

Whereas, The work of re-numbering the State roads has been completed and submitted to the Department at this meeting; now, therefore, be it

Resolved, That the numbers assigned to the roads in said system as shown in the attached schedule and list, and which is made a part hereof, be and the same are hereby designated as the appropriate numbers of the roads thereon indicated.

(Note—Lack of space prevents the inclusion in this issue of the list of roads as renumbered, but same will appear in November issue.)

Award of Contracts Approved

Upon motion of Mr. Schilling, seconded by Mr. Bayliss, the following resolution was unanimously adopted:

Whereas, Bids were asked by the Department for the construction of the roads and bridges hereinafter designated; and

Whereas, The firms and individuals respectively named were the lowest responsible bidders thereon; now, therefore, be it

Resolved, That the action of the Chairman in awarding and executing the contracts hereinafter named be and the same is hereby ratified, approved and confirmed, which said contracts are as follows:

Project	Road	Contractor	County	Length	Amount	Type
685-B	10	Nashville Bridge Co.	Franklin	120 Ft.	\$ 14,712.50	Steel Span
698-B	19	Peterson & Earnhart	Leon	110 "	4,262.80	Timber Overh'd
518	5-A	Barnes Construction Co.	Lafayette	11.75 Mi.	111,144.76	C. G. & G.
535	5-A	L. B. McLeod Construction Co.	Lafayette	13.19 "	61,912.14	C. G. & G.
624	50	L. B. McLeod Construction Co.	Hamilton	6.23 "	33,998.74	C. G. & G.
706-B	28	Curry & Turner	Putnam	14.91 "	62,199.67	C. G. & G.
708	11	Hardee-Fisher Co., Inc.	Jefferson	7.98 "	58,892.06	C. G. & G.
720	11	Hardee-Fisher Co., Inc.	Jefferson	9.64 "	56,398.95	C. G. & G.
723	66	L. B. McLeod Construction Co.	Leon	11.76 "	82,755.50	C. G. & G.
763	50	A. E. Campbell	Suwannee	12.23 "	32,083.42	C. G. & G.
6-B	1	Peterson & Earnhart	Madison	297 Ft.	53,254.15	Concrete
700-B	19	Peterson & Earnhart	Jefferson	496 "	58,485.04	Concrete
593	5	W. M. Hartin	Manatee		6,375.00	Removing Bridge

Lake County—Road No. 2—Right-of-Way

Upon motion of Mr. Green, seconded by Mr. Schilling, the following resolution was adopted:

(Note—This resolution authorizes the condemnation of certain lands between Tavares and the Orange County line on Road 2, and consists mainly of land descriptions, which make tedious reading in a magazine, and is therefore eliminated here.)

Railroad Crossing—"STOP" Law

Upon motion of Mr. Green, seconded by Mr. Bayliss, the following resolution was adopted:

AMERICAN GAS CHEAP.

Gasoline is a cent higher in Kentucky (not counting the tax) than in most Central States, but is cheaper than in any foreign country of the world. The cost per gallon in the following cities are: London, 26 cents; Berlin, 28 cents; Vienna, 29 cents; Brussels, 32 cents; Paris, 32 cents; Mexico City, 38

Resolved, That the action of the Chairman in connection with the carrying into effect of the law requiring the erection of "Stop" signs at railroad grade crossings be and the same is hereby approved and confirmed, and that the said Chairman be and is hereby empowered and directed to proceed with negotiations with the railway companies of the State until full compliance with the statute has been made.

Burning of Fences on Road 19

The Chairman submitted to the Department claims presented by Hon. W. T. Hendry, of Perry, representing parties who claim to have had fences burned along Road 19 as the result of negligence of convict captains.

Upon motion of Mr. Bayliss, seconded by Mr. Schilling, it was ordered that this matter be taken under advisement and held in abeyance for further investigation.

Federal Income Tax

Upon motion of Mr. Schilling, seconded by Mr. Green, the following resolution was unanimously adopted:

Whereas, The people of the State of Florida in their sovereign rights have written into their Constitution a provision prohibiting the levying of income or inheritance tax; and

Whereas, The Federal Government levies such tax and by statute has penalized such states which do not impose this burden upon the people thereof; and

Whereas, This is considered by the people of Florida an unjust exercise of Federal power; therefore, be it

Resolved, by the State Road Department of this State, that Congress be, and it is hereby petitioned to repeal this law, which places this unwarranted burden upon them.

Members' Expense Accounts

Upon motion of Mr. Schilling, seconded by Mr. Green, the expense accounts of the members were approved and ordered paid.

There appearing no further business, the Department was adjourned.

cents; Zurich, 39 cents; Sydney, 43 cents; Shanghai, 43 cents; Buenos Aires, 44 cents; Madrid, 47 cents; Rio de Janeiro, 50 cents; Rome, 52 cents, and Cape Town, 54 cents.—Kentucky Highways.

Although a street car has its faults, it can do something that a man can't do. It can go home straight, no matter how full it is.—Mink.



FOR EVERY GRADER NEED

Modern perfected Galion Graders meet every requirement with EASIER OPERATION, GREATER STRENGTH, LONGER SERVICE, and BETTER WORK than has ever before been offered in road graders.

Write for your copy of the Galion Leaning Wheel Grader catalog, just off the press.

The Galion Iron Works & Mfg. Co. of Florida
100 West Amelia Avenue, Orlando, Florida

GALION

**STRAIGHT AND LEANING WHEEL
E-Z LIFT GRADERS**

For Permanent Culverts
**Shearman Reinforced Concrete
Culvert Pipe**
Cannot Rust Out or Wear Out



Meets all State Road Dept. Specifications

**The Shearman Concrete Pipe Co.,
Incorporated**

Florida Plants

Jacksonville Lake Worth Tampa
Bartow Sarasota

Write or wire the nearest plant for prices.

Contract Bonds

Written Through



524 Barnett National Bank Bldg.
JACKSONVILLE, FLA.

are ACCEPTED ANYWHERE by
States, Counties, Municipalities,
Individuals, Firms, Corporations,
FEDERAL GOVERNMENT

When you require a contract bond,
insist that we write it and you will be
well and promptly served.

Wm. P. McDONALD CONSTRUCTION CO.

ASPHALT PAVING CONTRACTORS

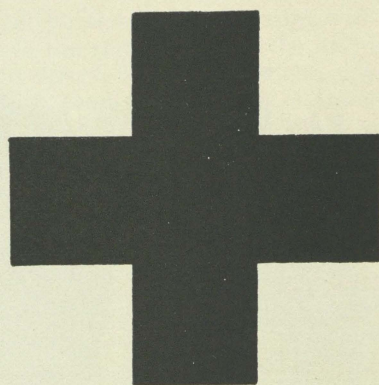
MAIN OFFICE

67 Lawrence Avenue
FLUSHING, N. Y.

BRANCH OFFICE

Rooms 907-917 Marble Arcade Bldg.
LAKELAND, FLORIDA

Join!



Yesterday · Today · Always
The **GREATEST MOTHER**

Vitrified Paving Brick for Economy

For the economical pavement there must first be a good foundation. On such a foundation should be laid the wear-proof, water-proof and time-proof vitrified brick pavement wearing-surface. Nothing on wheels can injure it.

Southern Clay Manufacturing Company

Chattanooga

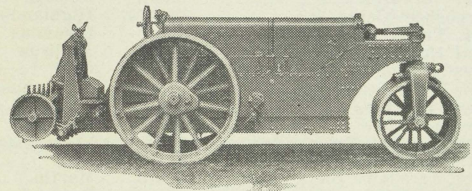
Tenn.

Makers of Paving Brick for 35 Years
Plants

Robbins, Tenn., Coaldale and N. Birmingham, Ala.

BUFFALO-SPRINGFIELD ROLLERS

The choice of experienced
engineers and contractors



Furnished in all weights and types—
motor and steam propelled.
Inquiries Invited.



The Buffalo Springfield Roller Co.
Springfield, Ohio.



FLORIDA AGENTS

E. F. HOLMES
37 N. W. Third Ave.,
Miami

M. D. MOODY
402 Masonic Temple,
Jacksonville

M. B. OGDEN

17th Street and First Ave., Tampa, Fla.

Telephone Y-1102

Representing

NORTHWEST ENGINEERING CO.—Cranes, Shovels
Draglines, and Pull Shovels.

PAGE ENGINEERING CO.—Dragline Buckets.

OWEN BUCKET CO.—Clam Shell Buckets.

DOMESTIC ENGINE & PUMP CO.—Diaphragm,
Centrifugal, and Force Pumps, Hoisting En-
gines, Etc.

AMERICAN STEEL & WIRE CO.—Wire Rope.

METAL FORMS CORP.—Road Rail, Sidewalk, Curb-
ing and Gutter Forms.

FOOTE COMPANY, INC.—Pavers.

ACME ROAD MACHINERY CO.—Rollers.

KOHLER COMPANY—Light Plants.

LAKEWOOD ENGINEERING COMPANY—Concrete
Placing Equipment, Finishing Machines,
Mixers, Industrial Cars, Track, Etc.

Equipment and a Complete Stock of Repair
Parts Carried in Tampa

Jack Camp,
President.

E. F. Fitch,
Vice-President.

Florida Crushed Stone Co.

Jacksonville

Ocala

Tampa

Producers of High Grade Washed and Sized

CRUSHED STONE

For All Purposes

Capacity 2,500 to 3,000 tons daily. Quarries
at Conrock and Camp, Florida, in Hernando
County, on the Atlantic Coast Line and Sea-
board Air Line Railroads.

C. W. STONE, Sales Manager

Sales Offices:

222 Allied Bldg., Tampa, Fla.

1011 Bisbee Bldg., Jacksonville, Fla.

Contracts Awarded by State Road Department January 1st, 1927, to October 15th, 1927

Contractor—	Project No.	County—	Length Miles	Length Feet	Contract + 10 %	Type
Neenan-Lawrence	54	Leon	13.00		\$385,297.67	Concrete.
Higgison Const. Co.	59	Leon-Jefferson	9.10		266,053.37	Concrete.
Duval Engr. & Contr. Co.	54-A & 58	Leon-Jefferson	12.53		264,524.48	R. B. S. T.
Manley Construction Co.	53-A	Lake	7.10		249,034.28	Asph. Conc.
W. J. Bryson Paving Co.	52	Escambia	10.089		241,904.49	C. G. & G.
Boone & Wester	677-C	Levy	10.16		224,345.88	C. G. & G.
Thompson & Moseley, Inc.	677-D	Levy	7.58		66,017.34	C. G. & G.
Lake Worth Const. Co.	683 C	Palm Beach	8.27		44,290.95	C. G. & G.
B. Booth & Co.	687-B	Lake	15.22		89,496.93	C. G. & G.
C. T. Dawkins	50-A	Putnam		120	22,243.32	Conc. Overh'd.
Okeechobee Const. Co.	655-667	Highlands		815	50,006.45	Timber.
C. H. Turner Co.	697	Escambia		488	22,911.53	Timber.
Duval Engr. & Contr. Co.	571	Madison	14.16		47,190.03	S. T.
Langston Const. Co.	660	Clay	10.52		33,538.07	S. T.
H. E. Wolfe	48	St. Johns	15.39		371,253.82	R. B.
Nelson Brothers	694	Martin	8.48		275,185.30	Concrete.
Johnson, Drake & Piper	693	St. Lucie	8.93		312,662.92	Concrete.
Concrete Steel Bridge Co.	665	Clay		1400	208,167.96	Concrete.
Concrete Steel Bridge Co.	664	Clay		1600	236,366.90	Concrete.
Royce Kershaw, Inc.	640-B	Martin		131	32,201.40	Concrete.
F. M. Stuart & Co.	40-B	Brevard		108	40,149.91	Concrete.
Langston Const. Co.	641	Palm Beach	9.67		188,279.21	R. B.
Samuel Vadner	695	Lake	10.50		63,734.69	C. G. & G.
Tampa Sand & Shell Co.	695	Lake			63,368.28	Hyd. Fil.
R. C. Huffman Const. Co.	669-D	Dade	12.30		382,038.36	C. G. & G.
Dean, Yarborough & Ebersbach	685	Franklin	17.43		159,980.86	C. G. & G.
Wm. P. McDonald Const. Co.	648	Hardee	7.14		24,075.97	S. T.
L. M. Gray	676-A-B	Levy	24.35		80,637.57	S. T.
West Construction Co.	614	Sarasota	17.34		483,586.35	Bit. Conc.
Manley Construction Co.	687-A	Lake	15.00		436,551.76	Sheet Asphf.
M. C. Winterburn, Inc.	543	Seminole	14.20		405,296.30	Bit. Mac.
Wm. P. McDonald Const. Co.	648	Hardee	6.36		123,804.83	R. B. S. T.
Duval Engr. & Contr. Co.	659	Clay	2.80		49,310.97	R. B. S. T.
C. A. Steed & Sons Co.	668	Brevard	13.45		373,640.32	R. B. S. T.
Stidham & Hughes	564-C	Charlotte	3.93		81,173.55	R. B. S. T.
H. L. Clark & Sons Co.	676-C	Levy	15.01		227,110.22	R. B. S. T.
F. X. Bradley & Co.	573-D	Orange	16.81		95,642.25	C. G. & G.
C. A. Henderson	713	Columbia	10.00		85,284.71	C. G. & G.
James Betteridge	41-B	Dade		88	42,387.84	Concrete.
Peterson & Earnhart	698	Leon		400	34,773.06	Concrete.
Peterson & Earnhart	699	Jefferson		300	27,441.17	Concrete.
John J. Quinn, Inc.	641	Palm Beach	1.00		52,494.31	S. T.
Board Co. Commrs., Taylor Co.	745	Taylor	14.00		12,320.00	C. & G.
Finlayson & Morris	747	Jefferson	6.50		40,566.79	C. G. & G.
C. S. Maulsby	694	Martin			10,780.00	Protection.
Kibby Engineering Co.	663-679	Citrus-Hernando	15.00		19,145.28	Guard Rail.
Alexander, Ramsey & Kerr	669-E	Dade	4.27		205,700.00	C. & G.
Langston Constr. Co.	522	Nassau	4.06		43,394.76	R. B. S. T.
W. J. Bryson Paving Co.	593	Manatee	0.66		12,058.22	Bit. Conc.
E. W. Parker	589	Lee		313	43,942.63	Concrete.
Murphy & Pryor	691	Indian River		285	60,594.05	Conc. Overhead.
Hayes & Kroeger	687-A	Lake		120	18,264.37	Conc. Overhead.
E. W. Parker	614	Sarasota		165	50,330.50	Conc. Bridge.
E. W. Parker	614	Sarasota		150	61,320.42	Conc. Bridge.
E. W. Parker	614	Sarasota		130	53,530.89	Conc. Bridge.
E. W. Parker	614	Sarasota		130	68,210.17	Conc. Bridge.
Cone Bros. Const. Co.	49	Flagler	13.81		252,196.06	R. B. S. T.
Fowler & Banko, Inc.	691	Indian River	5.52		165,364.35	Concrete.
Fowler & Banko, Inc.	692	St. Lucie	7.38		229,002.48	Concrete.
General Const. Co.	41-B	Dade		132	40,529.06	Conc. Bridge.
F. X. Bradley & Co.	716	Bradford	11.12		57,024.85	C. G. & G.
F. X. Bradley & Co.	717	Bradford	10.93		85,834.62	C. G. & G.
L. M. Gray	50-B	Putnam	9.77		158,820.99	R. B. S. T.
N. C. Cash	50-C	Putnam	10.03		178,026.92	R. B. S. T.
C. R. Scott	619	Alachua	9.28		134,370.72	R. B. S. T.
Higgison Const. Co.	6	Madison	5.45		47,471.46	C. G. & G.
W. J. Bryson Paving Co.	55	Alachua	16.77		142,280.00	C. G. & G.
Harrison & Estes	697	Escambia	.14		9,013.01	C. G. & G.
Franklin Const. Co.	706-A	Putnam	12.09		83,567.57	C. G. & G.
W. J. Bryson Paving Co.	714	Union	10.20		67,006.89	C. G. & G.
Sellers Const. Co.	715	Union	3.20		20,752.62	C. G. & G.
Little & Lee, Contractors	742	Alachua	7.65		39,762.96	C. G. & G.
Johnson, Drake & Piper	680	Bay		4000	829,392.71	Conc. & Steel.
Johnson, Drake & Piper	681	Bay		7530	1,119,966.46	Conc. & Steel.
F. W. Simpson	764	Suwannee	12.00		55,773.19	C. G. & G.
F. W. Simpson	765	Suwannee	7.00		30,428.89	C. G. & G.
Duval Engr. & Contr. Co.	677-A	Levy	6.96		88,648.38	R. B. S. T.
W. J. Bryson Paving Co.	53-B	Lake		570	96,431.98	Conc. Bridge.
C. G. Kershaw Contr. Co.	719	Suwannee	8.57		40,355.35	C. G. & G.
American Bascule Bridge Corp.	53-B	Lake			16,471.40	Bascule.
Nashville Bridge Co.	685-B	Franklin		120	16,183.45	Steel Span.
N. B. Burton	677-D	Levy	3.05		15,827.95	C. G. & G.
Carl Fay	668	Brevard			7,326.00	C. G. & G.
Peterson & Earnhart	698-B	Leon		110	4,689.08	Overhead Timber.
Barnes Construction Co.	518	Lafayette	17.75		122,259.23	G. G. & G.
L. B. McLeod Const. Co.	535	Lafayette	13.19		68,103.35	C. G. & G.
L. B. McLeod Const. Co.	624	Hamilton	6.23		36,841.61	C. G. & G.
Curry & Turner	706-B	Putnam	14.91		68,419.63	C. G. & G.
Hardee Fisher Co., Inc.	708	Jefferson	7.98		64,781.26	C. G. & G.
Hardee-Fisher Co., Inc.	720	Jefferson	9.64		62,028.84	C. G. & G.
L. B. McLeod Const. Co.	723	Leon	11.76		91,031.05	C. G. & G.
A. E. Campbell	763	Suwannee	12.23		35,291.76	C. G. & G.
Peterson & Earnhart	6-B	Madison		297	58,579.56	Conc. Bridge.
Peterson & Earnhart	700-B	Jefferson		496	64,333.54	Conc. Bridge.
N. S. Golden	669XZ	Collier		600	8,801.65	Timber Bridge.
W. M. Hartin	593	Manatee			7,012.50	Remove Bridge.
R. J. Carroll	722	Jefferson	8.83		67,379.51	C. G. & G.

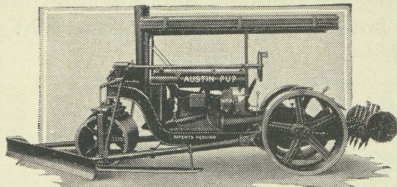
CONTRACTS AWARDED BY STATE ROAD DEPARTMENT—(Continued)

January 1st, 1927 to October 15th, 1927

Contractor—	Project No.	County—	Length Miles	Length Feet	Contract + 10 %	Type
L. M. Gray	50-A	Putnam	6.18	.....	\$107,716.22	R. B. S. T.
H. E. Wolfe Const. Co.....	669-X-Z	Collier	15.88	.....	220,281.24	R. B. S. T.
West Construction Co.....	640-A	Martin	9.00	.....	245,980.24	Sheet Asph.
West Construction Co.....	640-B	Martin	11.80	.....	338,710.85	Sheet Asph.
S. P. Snyder & Son	654	Breward	6.30	.....	160,037.98	Bit. Mac.
E. F. Powers Const. Co.....	615	Sarasota	11.92	.....	118,804.33	C. G. & G.
Cox & Bryson Paving Co.....	573-D	Orange .....	.....	173	30,723.50	Conc. O. H.
The Albinson Co.....	661-B	Lake .....	.....	40	18,408.24	Conc. O. H.
Chas. F. McKensie & Co.....	695-B	Lake .....	.....	509	36,939.21	Conc. O. H.
Kidd Construction Co.....	706	Putnam .....	.....	675	33,826.98	Timbr. Bridge
Gillespie & North	717	Bradford .....	.....	110	5,139.64	Timber O. H.
Duval Engr. & Contr. Co.....	659	Clay	2.53	.....	38,223.30	R. B. S. T.
American Bascule Bridge Corp.	695-B	Lake .....	.....	40	17,585.70	Bascule
Langston Const. Co.....	695	Lake .....	.43	.....	6,141.57	R. B. S. T.
Totals			736.66	22,145	\$13,829,515.55	

From RUSSIA to WACO

The first Motor Roller made in America was made by Austin in 1907. Backed by these 20 years' of experience, our engineers have designed Rollers known from Russia to Waco for their ease of handling and durability made possible by their perfect balance and rigid construction.

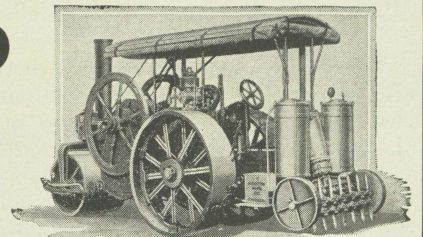


The Austin Pup
with scarifier and blade attachment

The Austin Line of Rollers include

- 3-wheeled Rollers or Tandems
- 3-ton to 15-ton
- 1-cylinder, 2-cylinder, 4-cylinder or Steam

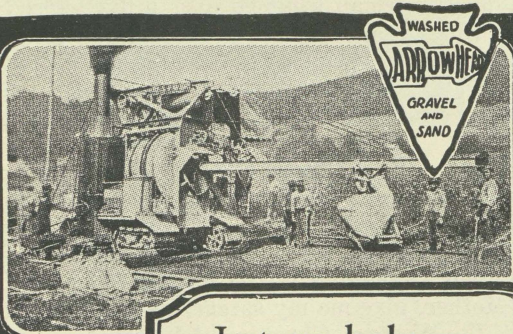
There is something of interest to you about the world's most popular roller—the Austin single cylinder 10-Ton, 3-Wheeled Model.



"The World's Standard"

[LET US TELL THE NEWS
IN OUR BULLETIN NO. 20]

The Austin-Western Road Machinery Co. 400 N. Michigan Blvd.
CHICAGO, ILLINOIS



Let us help you
mind your

P's (Profits)
Q's (Quality)

Road project profits hinge (1) on meeting specifications and (2) on getting the job done on schedule time.

Arrowhead aggregates are a double help. Scientifically prepared! Shipping service that meets schedule dates—without interruption.

4000
TONS
A
DAY

MONTGOMERY GRAVEL CO.

Office:
Shepherd Bldg.
Montgomery, Ala.

Plants:
Arrowhead, Ala.
Montgomery, Ala.

Wood Preservers Since 1878

Eppinger & Russell Co.

CREOSOTED

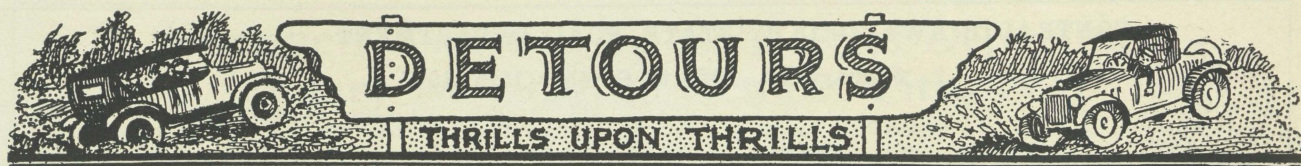
Forest Products of all kinds

Ties, Lumber, Piles, Poles, Cross Arms for Railroads, Bridges, Docks, Fences, and other purposes where permanent construction is required.

Also Manufacturers and Dealers in
Yellow Pine and Cypress

Main Office: 165 Broadway, New York
Branch Office: Jacksonville, Fla.
Plants at Jacksonville, Fla.
Long Island City, N. Y.

Information and Quotations Cheerfully Given.
Address Nearest Office.



The farmer and the lawmaker can both raise the value of their product by limiting output.—Christian Science Monitor.

So far, every photograph radioed from Europe looks as though it had encountered a rough crossing.—Arkansas Gazette.

A gasoline shortage is predicted for the year 2000, but by that time the cars will be so thick they can't move anyhow, so it doesn't matter.—St. Paul Pioneer-Press.

There are people who believe that Florida will go Republican in the next Presidential election. Well, ice-fields have just been found in Africa.—American Lumberman.

In another ten years, says General Patrick, it will be perfectly safe to travel by air. Long before that, however, if traffic continues as at present, it won't be safe to travel anywhere else.—San Diego Union.

And Now You Know.

"Ah. You are the young man in question? What's your name?"

"Ivan Auszeichmmugeneugteki."

"How do you spell it?"

"As it is pronounced."—Pel Mele (Paris).

Take to the Timber.

We are told that "this year's world output of motor-cars will run into millions." We are glad of this hint, and will try our best not to be one of those millions.—Liverpool Weekly Post.

Try This.

Husband—"Another birthday! Alas! It is devastating!"

Wife—"Nonsense! It all depends on the point of view. Why don't you do as I do. I am just entering my forty-ninth year for the eighth time.—L'Illustration (Paris).

Bloody but Unbowed.

Beat me, kick me, cheat me, lick me,

Throw me down the stairs;

Gash me, pound me, slash me, hound me,

Make me say my prayers;

Tho we'll always have a fight,

Life, I'll love you just for spite!

—New York Evening Post.

Glorious Moment.

I am twenty-five cents.

I am not on speaking terms with the butcher.

I am too small to buy a quart of ice-cream.

I am not large enough to purchase a box of candy.

I am too small to buy a ticket to a movie.

I am hardly fit for a tip, but—believe me, when I go to church on Sunday I am considered some money! —Christian Evangelist.

Under the laws of this country a man is innocent until he is proved guilty. Then he is usually insane.—Dallas News.

Next to Lindberg's feat, the greatest sensation will be the fiftieth wedding anniversary of a movie couple.—Indianapolis Star.

Safety experts in Chicago estimate that we have twenty-five thousand deaths a year from accidents in the home. Despite this appalling record, foolhardy people still persist in loitering about the perilous place, and even children are sometimes found there.—The New Yorker.

Domestic Pet.

Some people are worrying how to keep the wolf from the door; others are figuring out how they can throw it out of the house before it has pups.—Kings-ton Whig-Standard.

Good Kindling.

"It is said that paper can be used effectively in keeping a person warm."

"Yes, I remember a thirty-day note once kept me in a sweat for a month."—Christian Evangelist.

Sirloin Steak for One.

The old gentleman tumbled over a five-barred gate just in time to save himself from the angry bull. "You brute," he spluttered, shaking his fist at the animal, "and I've been a vegetarian all my life."—Cincinnati Enquirer.

Cradle Song.

Quack Medicine Vendor—"Sir, I might mention as a slight testimonial to this world-famed 'Rejuvenator' that, a year ago, after taking one small dose over-night, upon awakening in the morning, I said to my wife, 'Mother, give me my satchel—I shall be late for school!'"—Western Christian Advocate.

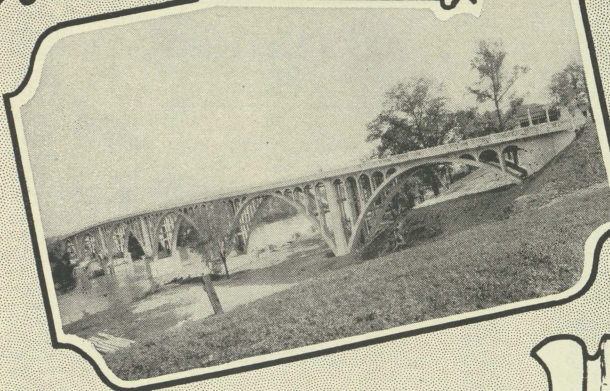
And Don't Forget Those Dues.

Golf is what letter-carrying, ditch-digging, and carpet-beating would be if those three tasks had to be performed on the same hot afternoon in short pants and colored socks by gouty-looking gentlemen who required a different implement for every mood.—New York Sun.

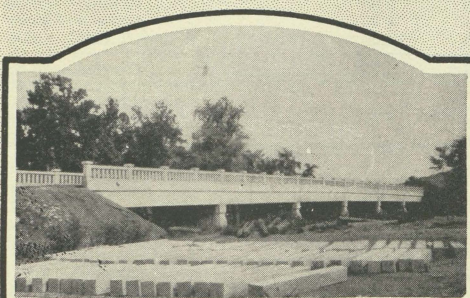
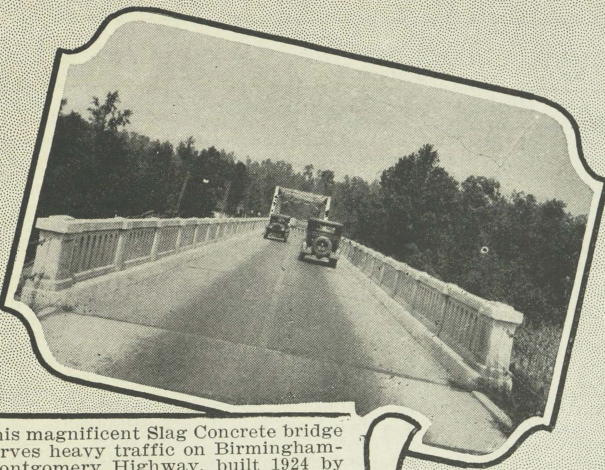
Voice of Authority.

A little girl was put in an upper berth of a Pullman sleeping-car for the first time. She kept crying till her mother told her not to be afraid, because God would watch over her. "Mother, you there?" she cried. "Yes." "Father, you there?" "Yes." A fellow passenger lost all patience at this point and shouted: "We're all here! Your father and mother and brothers and sisters and aunts and uncles and cousins. All here; now go to sleep." There was a pause; then, very softly: "Mamma!" "Well?" "Was that God?"—Tit-Bits.

1400 ft. Slag Concrete bridge over the Coosa River at Gadsden, built 1927 by the Kershaw Contracting Co. (B'ham.)



This magnificent Slag Concrete bridge serves heavy traffic on Birmingham-Montgomery Highway, built 1924 by the Columbus Construction Co. (Columbus, Ga.)



150 ft. Slag Concrete bridge on Birmingham - Gadsden highway, built 1923 by Etowah County convict forces.



This combination steel and slag concrete bridge carries traffic over Tallapoosa River. Built in 1926 by county convicts.



Many new bridges in Alabama are Slag Concrete

ALABAMA is planning now to meet the demands of increasing traffic, in all parts of the state, with a comprehensive system of modern concrete bridges. The four magnificent bridges, recently completed, emphasize the confidence her engineers have in

"ENSLEY" & "ALA CITY"
BASIC SLAG
CRUSHED & SCREENED

The use of crushed Basic Slag in ten bridge projects, contracts let within the past 60 days, shows how completely Basic Slag Concrete has justified this confidence.

In Alabama, Georgia and Florida progressive bridge engineers have found that slag concrete is not only lighter but much stronger, and that a substantial saving in the number of cubic yards of concrete required for each project can be made through the use of crushed Basic Slag.

Birmingham Slag Co.

Slag Headquarters for the South

Atlanta	Birmingham	Jacksonville,
Thomasville	Montgomery	Ocala, Fla.

Status of Construction

THROUGH AUGUST 31st, 1927

Proj. No.	Contractor.	Road No.	County	Total Length Miles	Clearing Miles	Grading Miles	Base Miles	Surface Miles	Per Cent Complete
6	Higgison Const. Co.	1	Madison	5.45	2.73	.87		Graded	16.00
47	J. B. McCrary Engr. Corp.	4	St. Johns	14.96				14.96 Conc.	100.00
48	H. E. Wolfe	4	St. Johns	15.94			15.94	15.94 S.T.R.B.	100.00
49	Cone Bros. Const. Co.	4	Flagler	13.82			7.04	0.00 S.T.R.B.	39.00
50-B	L. M. Gray	14	Putnam	9.77			9.78	0.00 S.T.R.B.	75.00
50-C	N. C. Cash	14	Putnam	10.03			3.30	0.00 S.T.R.B.	22.90
52	W. J. Bryson Paving Co.	1	Escambia	10.09	7.06	5.55		Graded	62.00
53-A	Manley Const. Co.	1	Lake	7.11			7.11	B. Conc.	100.00
53-C	Tampa Sand & Shell Co.	2	Lake	1.87	1.85	1.80		Graded	98.90
54	Noonan-Lawrence	1	Leon	13.00				11.31 Conc.	86.00
55	W. J. Bryson Paving Co.	14	Alachua	16.77	4.19	.50		Graded	8.40
58	Duval Engr. & Contr. Co.	1	Leon-Jefferson	12.54			12.54	12.54 S.T.R.B.	98.00
502	State Convict Forces	10	Gulf	6.94			6.59	0.00 S.T.R.B.	85.59
518	Barnes Construction Co.	5-A	Lafayette	17.75	0.00	0.00		Graded	0.00
535	L. B. McLeod Const. Co.	5-A	Lafayette	13.19	0.00	0.00		Graded	0.00
543	M. C. Winterburn, Inc.	3	Seminole	14.20			11.36	2.13 B. Mac.	49.10
573-D	F. X. Bradley & Co.	2	Orange	16.81	16.81	15.97		Graded	94.00
580	State Convict Forces	19	Dixie	16.50	16.50	16.50	16.50	16.50 S.T.R.B.	100.00
587	C. G. Kershaw Const. Co.	5-A	Columbia	4.38	4.38	4.38		Graded	100.00
592	U. S. Fidelity & Guaranty Co.	10	Franklin	7.89	7.89	7.89		Graded	100.00
614	W. J. Bryson Paving Co.	5	Sarasota	17.34	17.34	15.61		Graded	95.00
614	West Construction Co.	5	Sarasota	17.34			12.65	.35 B. Mac.	40.00
619	C. R. Scott	5	Alachua	9.28			7.42	0.00 S.T.R.B.	64.80
624	L. B. McLeod Const. Co.	50	Hamilton	6.23	0.00	0.00		Graded	0.00
640 A	S. J. Groves & Sons Co.	4	Martin	9.00	9.00	9.00		Graded	100.00
640-B	Lake Worth Const. Co.	4	Martin	11.80	11.80	9.44		Graded	87.10
641	Langston Const. Co.	4	Palm Beach	11.90			11.90	3.57 S.T.R.B.	90.00
651	State Convict Forces	10	Gulf	14.72			2.94	0.00 S.T.R.B.	18.00
653	H. D. Spangler	4	Broward	13.46	12.78	11.84		Graded	92.70
659	M. C. Winterburn, Inc.	3	Clay	13.27	13.27	10.48		Graded	83.00
668	C. A. Steed & Sons Co.	4	Brevard	13.45			11.43	5.64 S.T.R.B.	65.00
669-C	R. C. Huffman Const. Co.	27	Dade	12.00	12.00	9.00		Graded	70.00
669-D	R. C. Huffman Const. Co.	27	Dade	12.30	8.00	3.69		Graded	30.00
669-E	Alexander, Ramsey & Kerr	27	Dade	4.55	4.55	4.55		Graded	85.00
669-W	State Convict Forces	27	Collier	16.00	16.00	16.00	13.13	0.00 S.T.R.B.	85.00
671	State Convict Forces	20	Jackson	4.07	4.07	3.87		Graded	96.82
676-C	H. L. Clark & Sons Co., Inc.	19	Levy	15.02			11.86	0.00 S.T.R.B.	67.00
677-A	Duval Engr. & Contr. Co.	13	Levy	6.96			3.48	0.00 S.T.R.B.	37.00
677-B	Coastal Const. Co.	13	Levy	11.58	11.58	11.58		Graded	100.00
677-C	Boone & Wester	13	Levy	10.16	10.16	5.08		Graded	75.00
677-D	Thompson & Moseley, Inc.	13	Levy	7.58	7.58	7.50		Graded	97.00
677-D	N. B. Burton	13	Levy	3.05	.61	.61		Graded	10.00
683-C	Lake Worth Const. Co.	4	Palm Beach	9.16	8.97	7.78		Graded	90.00
685	Deen, Yarbrough & Ebersbach	0	Franklin	17.43	15.69	9.23		Graded	65.85
687 A	Manley Const. Co.	2	Lake	15.00			14.85	8.25 S. Asph.	74.20
687-B	B. Booth & Co.	2	Lake	15.22	15.22	14.18		Graded	90.87
691	Fowler & Banko, Inc.	4	Indian River	5.52				0.00 Conc.	0.00
692	Fowler & Banko, Inc.	4	St. Lucie	7.38				6.19 Conc.	81.00
694	Nelson Brothers	4	Martin	8.36				8.36 Conc.	100.00
695	S. Vadner and Tampa Sand & Shell Co.	2	Lake	10.54	10.22	7.38		Graded	85.00
698	Curtis & Gubbins	19	Leon	12.43	12.43	10.31		Graded	88.00
699	State Convict Forces	19	Jefferson	7.71	7.71	7.00		Graded	82.00
700	State Convict Forces	19	Jefferson	9.26		Not Reported		Graded	
706-A	Franklin Const. Co.	28	Putnam	12.09	7.11	1.78		Graded	22.90
706-B	Curry & Turner	28	Putnam	14.91	0.00	0.00		Graded	0.00
708	Hardee-Fisher Co., Inc.	11	Jefferson	7.98	0.00	0.00		Graded	0.00
713	C. A. Henderson	28	Columbia	10.00	9.30	6.20		Graded	80.00
714	W. J. Bryson Paving Co.	28	Union	10.20	1.32	.51		Graded	3.30
715	Sellers Const. Co.	28	Union	3.20	2.74	.48		Graded	17.48
716	F. X. Bradley & Co.	28	Bradford	11.12	6.67	2.78		Graded	30.70
717	F. X. Bradley & Co.	18	Bradford	10.94	7.65	2.19		Graded	24.50
719	C. G. Kershaw Const. Co.	5-A	Suwannee	8.57	5.31	1.71		Graded	34.10
720	Hardee-Fisher Co., Inc.	11	Jefferson	9.64	0.00	0.00		Graded	0.00
723	L. B. McLeod Const. Co.	66	Leon	11.76	0.00	0.00		Graded	0.00
728	State Convict Forces	10	Leon	11.65	7.57	1.16		Graded	15.00
740	State Convict Forces	10	Gulf	9.63	8.67	6.64		Graded	41.40
742	Little & Lee	13	Alachua	7.65	5.74	.76		Graded	15.00
743	State Convict Forces	10	Bay	18.25	5.47	4.56		Graded	18.60
745	Convicts and Taylor County	19	Taylor	14.00	5.19	1.90		Graded	10.60
747	Finlayson & Morris	35	Jefferson	6.50	4.87	4.29		Graded	60.00
763	A. E. Campbell	50	Suwannee	12.23	0.00	0.00		Graded	0.00
764	F. W. Simpson	50	Suwannee	12.00	9.60	1.80		Graded	15.00
765	F. W. Simpson	50	Suwannee	7.00	4.47	.70		Graded	13.68
770	State Convict Forces	22	Brevard	9.00		Not Reported		Graded	
786	State Convict Forces	52	Jackson	6.76	2.43	2.43		Graded	26.72
Total Complete August 31st, 1927					2187.44	2089.74	1054.55	1584.43	
Complete Month of August					60.49	37.93	37.40	33.90	
Total Complete July 31st, 1927					2126.95	2051.81	987.15	1550.53	

TOTAL MILEAGE COMPLETE

	Concrete	Brick	B. C.	S. A.	B. M.	Asph. Block	S.T.R.B.	S. C.	Marl	Total
Complete to July 31, 1927	226.72	17.13	23.81	84.92	88.89	23.50	737.25	418.41	27.58	1608.83
Complete Month of August	7.81		2.65	1.83			28.59			40.88
Complete to August 31, 1927	224.53	17.13	26.46	86.75	88.84	23.20	765.85	418.41	27.58	1649.71

Reinforcing Bars for Concrete

Made in the United States
from new billet steel.

Intelligent, dependable service
by expert bridgemen.

Dudley Bar Company

BIRMINGHAM, ALA.

SLAG

For any Type of Concrete Paving or
Surface Treatment

Our Woodward Plant (destroyed by fire
July 6th, 1926) has been rebuilt with the most
modern Crushing and Screening equipment.
This new plant is producing a material unex-
celled in correct and uniform sizing.

Our daily capacity from two plants is 3,000
tons, and in addition thereto, we have storage
facilities for taking care of rush or emergency
orders.

Write or telegraph for delivered prices.

Woodstock Slag Corporation

807-8-9 Southern Railway Building
BIRMINGHAM, ALABAMA

TECHNICAL GOODS

for the

Engineer and Architect

Representing All Leading Manufacturers

COMPLETE STOCKS
PROMPT SERVICE
CORRECT PRICES

Write for Samples, Prices, Catalogs

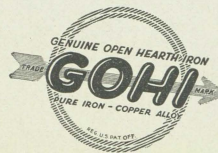
THE H. & W. B. DREW CO.

Stationers and Booksellers
Printers and Lithographers
Complete Office Outfitters

JACKSONVILLE, FLORIDA

Sales Offices in Tampa and Miami

EVERLASTING



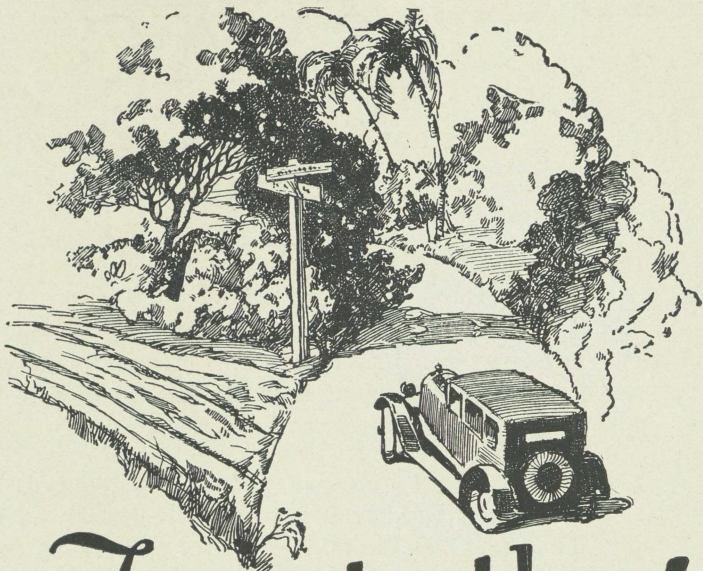
Copper Bearing Open
Hearth Iron, Galvanized
Corrugated Culverts

Prompt Shipments

Let Us Quote

Manufactured by
Newport Rolling Mills

Sold by
Southern Metal Culvert Co.
Stuart, Florida



Turn to the/ *Right!*

POPULATION has always followed the trail-blazer. He marks the road! The more roads, the easier population had found it to follow, always, you have noticed, taking the best road to its destination. For good roads are symbols of progress.

Judge by your own opinion, your own experience, which communities and which population territories have prospered most—and have prospered first! Those with good roads, or those with bad? Which farms command the higher values? Which towns and cities attract the most trade—those which make it easy to get in, with good roads; or those which lay obstacles in the way of the traveler with unpaved roads, roads in disrepair, roads which are dangerous with ruts and holes, which make traveling tedious and irritate the temper of the traveler.

Purchasers fail to buy freely when annoyed by bad roads. Merchants lose possible sales, community progress is checked—indeed, many cities and towns lose close-by trade, because other cities have laid good roads in the other direction!

Lime Rock base roads bring money into town, increase property values and invite the traveler to stay.

When highway builders select Lime Rock they select an unsurpassed material.

With a well laid surface and proper drainage, Lime Rock represents the most economical base Florida communities can choose—low first cost; low labor cost in construction; approved both by the Government and the foremost testing laboratories, long-lasting in service.

Lime Rock Is the Life of the Highway

A FLORIDA PRODUCT

FLORIDA
LIME ROCK
ASSOCIATION

P. O. Box 1081

JACKSONVILLE, FLORIDA